

Results of the Gorham Street Supplemental Soil Investigation, Former Hampshire Corp. Facility, Waterloo, New York

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Introduction

This technical memorandum presents the results of soil sampling activities in the Gorham Street area for the former Hampshire Chemical Corp. (HCC) facility in Waterloo, New York (site). The objective of this investigation was to further delineate arsenic and cadmium concentrations identified in soil on the east side of Gorham Street during the August 2007, May 2009, and December 2010 sampling events.

All field activities were performed in general accordance with the *Supplemental Gorham Street Investigation Work Plan* (CH2M HILL 2011a) and the site quality assurance project plan (CH2M HILL 2009a).

Background

The site is located at 228 East Main Street in the village of Waterloo, Seneca County, New York (Figure 1). It is regulated under 6 New York Code Rules and Regulations (NYCRR) Part 373 and the Resource Conservation and Recovery Act (RCRA), with the New York State Department of Environmental Conservation (NYSDEC) as the lead agency. RCRA facility investigation (RFI) efforts have been performed at the facility since 1993 to evaluate the nature and extent of releases to the environment.

The RFI report (CH2M HILL 2006) and RFI Addendum Report (CH2M HILL 2008a) present information regarding site setting, history, and manufacturing processes.

In August 2007, soil samples collected from two shallow soil sampling locations on the eastern side of Gorham Street contained arsenic and cadmium concentrations exceeding the NYSDEC (2006) Restricted Use Soil Cleanup Objectives (RUSCO): Protection of Public Health, Residential (6 NYCRR Part 375-6.8(b)) of 16 milligrams per kilogram (mg/kg) and 2.5 mg/kg, respectively (CH2M HILL 2008b). The sampling locations, designated as SS-19 and SS-20, are adjacent to the employee parking lot on Gorham Street. See Figure 2 for sampling locations. In a letter dated December 9, 2008, NYSDEC requested that the extent of arsenic at SS-19 and SS-20 be delineated (NYSDEC 2008). Delineation sampling was proposed as part of the April 2009 *Gorham Street Interim Remedial Measures Work Plan Addendum* (CH2M HILL 2009b). The work plan was approved by NYSDEC in a letter dated May 5, 2009 (NYSDEC 2009a). In a follow-up email correspondence on May 6, 2009,

NYSDEC requested that the cadmium concentrations detected at SS-20 also be delineated (NYSDEC 2009b).

In May 2009, soil samples were collected from four sampling locations, DE-01 through DE-04. The results were summarized in the *Gorham Street Investigation Report*, dated February 2010 (CH2M HILL 2010a). Arsenic and cadmium concentrations were detected above RUSCO screening levels at each location, warranting additional delineation sampling activities. Delineation sampling was proposed as part of the *Gorham Street Investigation Work Plan*, dated February 2010 (CH2M HILL 2010b). NYSDEC requested additional sampling locations in the employee parking lot area in a letter dated July 23, 2010 (NYSDEC 2010a). HCC agreed to the additional sampling locations in a letter to NYSDEC dated November 12, 2010 (Dow 2010). In a letter dated December 2, 2010, NYSDEC provided additional comments on the investigation scope of work (NYSDEC 2010b). These comments were discussed verbally with the NYSDEC case manager and incorporated into the field investigation.

In December 2010, soil samples were collected from eight sampling locations, DE-05 through DE-12. The results were summarized in the *Additional Investigations Results Report* dated February 2012 (CH2M HILL 2012). Arsenic exceeded its RUSCO screening level at all eight sampling locations, and cadmium exceeded its RUSCO screening level at seven of the eight sampling locations. Based on these concentrations, additional sampling was needed to delineate the extent of arsenic and cadmium impacts in soils west of Gorham Street.

Additional delineation sampling activities were proposed as part of the June 2011, *Supplemental Gorham Street Investigation Work Plan* (CH2M HILL 2011a). In a follow-up email correspondence, dated July 21, 2011, from NYSDEC, the New York State Department of Health (NYSDOH) requested that three additional locations be added (NYSDOH 2011). In July 2011, the supplemental investigation work plan was implemented, along with the three additional locations requested by NYSDEC via the installation and sampling of 14 soil borings (DE-13 through DE-26). Based on review of the analytical results, it was concluded that additional delineation sampling was needed north and west of the Gorham Street parking lot. The scope of work for additional sampling was provided to NYSDEC in an email dated September 29, 2011, and consisted of eight borings (DE-27 through DE-34) (CH2M HILL 2011b), which was approved by NYSDEC in an email dated October 7, 2011 (NYSDEC 2011). These borings were installed and sampled in October 2011. In a meeting with NYSDEC on December 5, 2011, it was agreed that additional samples be collected east and north east of the Gorham Street parking lot. These borings (DE-35 through DE-37) were collected in November 2011.

Sampling Summary

Including sampling events dating back to August 2007, two surface soil sampling locations (SS-19 and SS-20) and 37 shallow soil borings to 5 feet below ground surface (DE-01 through DE-37) have been installed to characterize the extent of arsenic and cadmium concentrations in the Gorham Street area of the site. Details pertaining to sampling activities associated with SS-19 and SS-20 are summarized in the RFI Addendum report (CH2M HILL 2008a); DE-01 through DE-04 are documented in the *Gorham Street Investigation Report* (CH2M HILL 2010a); and DE-05 through DE-12 are documented in the *Additional Investigations Results Report* (CH2M HILL 2012). Sampling activities pertaining to the implementation of the

supplemental investigation work plan and follow-up sampling (DE-13 through DE-37) are provided in this memorandum.

Borings DE-13 through DE-26 were installed in July 2011; borings DE-27 through DE-34 were installed in October 2011; and borings DE-35 through DE-37 were installed in November 2011. DE-13 through DE-33 were advanced via a Kubota 4400 drill rig equipped with direct-push technology. The soil cores were collected in dedicated 4-foot acetate liners. Borings DE-34 through DE-37 were advanced using a hand auger. Soil cores for DE-13 through DE-34 were logged by a CH2M HILL geologist. A sampling summary is provided as Table 1, and boring logs for DE-13 through DE-34 are provided as Attachment A.

In general, soil samples were collected from each boring at the following depth intervals:

- 0 - 2 inches
- 2 - 6 inches
- 6 - 12 inches
- 12 - 24 inches
- 24 - 36 inches
- 36 - 48 inches
- 48 - 60 inches

Locations DE-20, DE-22, and DE-24 were sampled from 0-2 inches and 48-60 inches only. Samples could not be collected at DE-13, DE-14, DE-15, DE-16, and DE-26 from 0-2 inches; and at DE-16 and DE-26 from 2-6 inches due to the asphalt cover. Samples could not be collected at DE-15 from 12-24 inches, 24-36 inches, 36-48 inches, and 48-60 inches; and at DE-16 from 6-12 inches, 12-24 inches and 36-48 inches due to low sample recovery. Samples could not be collected at DE-35 and DE-36 from 24-36 inches, 36-48 inches, and 48-60 inches; and at DE-37 from 36-48 and 48-60 inches due to refusal.

Soil samples were collected from the appropriate depth intervals using clean, dedicated disposable sampling materials (plastic trowels and pans). Quality assurance/quality control samples were collected in accordance with the supplemental investigation work plan. Investigation-derived waste was stored in 55-gallon drums for subsequent characterization and offsite disposal.

Sampling Results

This section summarizes the analytical results. Full analytical results (laboratory raw data) are in Attachment B, and the data quality evaluation (DQE) is presented in Attachment C.

Analytical results for arsenic and cadmium concentrations are summarized in Tables 2 through 6 and shown on Figure 3. The results were compared to the RUSCO screening levels (16 mg/kg for arsenic and 2.5 mg/kg for cadmium). Results exceeding the RUSCO screening levels are bolded and highlighted.

In general, unconsolidated fill material, consisting of silt and some lenses of fine sand and clay, were encountered to the depths of the boring installed along the canal (maximum 5 feet bgs). Debris (bricks, glass, and wood fragments) was observed in borings DE-18, DE-21, and DE-24, which were installed south of the parking lot and adjacent to the canal. Ash-like

and/or slag-like material was observed in borings DE-21, DE-23, DE-25, DE-30, and DE-34, which were also installed adjacent to the canal. Native material consisting of cohesive, mottled silt was encountered in borings DE-27 and DE-28, which were advanced north of the parking lot. This material is indicative of the glacial till that generally makes up most of the native overburden deposits in the area.

The following sections provide observations based on the analytical results of all investigation borings installed to date.

North of Gorham Street Parking Lot

This sampling area consists of boring locations DE-13, DE-14, DE-27, DE-28, and DE-35. DE-13 and DE-14 are located in the parking lot and DE-27 and DE-28 are located north of the parking lot. DE-35 is located northeast of the parking lot. Table 2 summarizes the analytical results of the samples collected in this area.

Arsenic concentrations above the RUSCO screening level were present from 6-24 inches along the northern parking lot boundary at DE-13 and DE-14. Although boring DE-27 exhibited a marginal exceedance for arsenic (22.4 mg/kg) from 6-12 inches, an associated duplicate sample was below the RUSCO screening level (15.2 mg/kg). DE-28, which was advanced slightly farther north than DE-27, did not exhibit concentrations above RUSCO screening levels. As a result, these sampling results indicate that arsenic has been delineated north of the parking lot.

Arsenic concentrations above the RUSCO screening level were detected from 0-12 inches at DE-35 northeast of the parking lot area. Arsenic concentrations from 12-24 inches were below the RUSCO screening level (13.8 mg/kg); however, an associated duplicate sample was detected above the RUSCO screening level (22.1 mg/kg)

Cadmium was not detected above its RUSCO screening level. As a result, cadmium is delineated to the north.

Gorham Street Parking Lot - Central Area

This sampling area consists of borings DE-15 and DE-16, which were installed in the central portion of the Gorham Street parking lot. Table 3 summarizes the analytical results of the samples collected in this area.

No concentrations of arsenic were detected above the RUSCO screening level. Cadmium was detected above its RUSCO screening level at DE-15 from 6-12 inches at a concentration of 2.86 mg/kg. A field duplicate collected from DE-15 from 6-12 inches exhibited a cadmium concentration of 2.2 mg/kg, which is below the RUSCO screening level.

These sampling results indicate that arsenic and cadmium concentrations above RUSCO screening levels are not prevalent in the central parking lot area.

Gorham Street Parking Lot - West Area

This sampling area consists of borings SS-19, SS-20, DE-01 through DE-04, DE-10 through DE-12, DE-26, and DE-34. SS-19, SS-20, and DE-01 through DE-04 are located between the east side of Gorham Street and western boundary of the parking lot. DE-10 through DE-12 were installed in the parking lot near the western boundary. DE-34 was installed on the

west side of Gorham Street, and DE-26 was farther west near the former smoke stack. Table 4 summarizes the analytical results of samples collected in this area.

The highest concentration of arsenic was detected at DE-11 from 36-48 inches (435 mg/kg), and the highest concentration of cadmium was detected at DE-12 from 12-24 inches (1,150 mg/kg). DE-11 and DE-12 are located in the southwest portion of the parking lot.

Laterally, concentrations generally decreased from south to north. Arsenic was only detected above the RUSCO screening level in the 2- to 18-inch interval at SS-19 (31.3 mg/kg), and the 6- to 12-inch interval (16.7 mg/kg) and 24-to 36-inch interval (23.2 mg/kg) at DE-01. Cadmium was not detected above its RUSCO screening level of 2.5 mg/kg in the two northernmost borings (SS-19 and DE-01).

Vertically, concentrations at borings where deep sample intervals were collected (DE-10, DE-11, and DE-12) generally decreased with depth. Arsenic concentrations at boring DE-26, which is located onsite and not in the Gorham Street area, increased with depth.

South of Gorham Street Parking Lot

This sampling area consists of borings DE-05 through DE-09, DE-18 through DE-25, DE-30, DE-31, DE-32, DE-33, DE-36, and DE-37. All borings were installed south of the parking lot. Table 5 summarizes the analytical results of the samples collected in this area.

Overall, high concentrations of arsenic and cadmium were detected directly south and southwest of the parking lot and decreased from west to east. The highest concentrations of arsenic and cadmium were detected at DE-18 for both arsenic (409 mg/kg) and cadmium (168 mg/kg). Concentrations of arsenic exceeding 100 mg/kg were detected in borings DE-05, DE-06, DE-07, DE-08, DE-18, DE-19, and DE-21. Concentrations of cadmium exceeding 25 mg/kg were detected in borings DE-07, DE-09, DE-18, DE-19, and DE-21. East of DE-21, only one boring (DE-31) exhibited arsenic and cadmium concentrations above 100 mg/kg and 25 mg/kg, respectively.

The two easternmost borings, DE-36 and DE-37, exhibited maximum arsenic and cadmium concentrations of 23.7 mg/kg and 2.95 mg/kg, respectively. No exceedances were observed below 12 inches. The concentrations at DE-36 and DE-37 are approaching the RUSCO screening level of 16 mg/kg and 2.5 mg/kg, respectively.

Vertically, arsenic concentrations generally decreased with depth. Cadmium concentrations increased with depth from 0-36 inches, then decreased with depth from 36-60 inches.

East and Northeast of Gorham Street parking lot

This sampling area consists of borings DE-17 and DE-29, which were installed east of the parking lot. Table 6 summarizes the analytical results of the samples collected in this area.

The highest concentration of arsenic (79.9 mg/kg) and cadmium (19.3 mg/kg) were detected at DE-29 from 0-2 inches. No exceedances of the RUSCO screening level were detected below 12 inches in either boring.

Conclusions

Based on the results of the soil investigation activities performed to date, the conclusions are:

- The highest concentrations are generally found in the southwest portion of the parking lot (DE-11, DE-12) and the areas adjacently south and southwest of the parking lot (DE-05 through DE-21).
- The highest concentrations of arsenic were generally detected in shallow soil from 0-24 inches.
- The highest concentrations of cadmium were generally detected from 12-36 inches.
- Overall, arsenic and cadmium concentrations generally decreased with depth.
- North and east of the parking lot, samples were collected up to the property boundary due to adjacent privately owned properties.
- North of the parking lot, concentrations were at the regulatory level.
- South of the parking lot, concentrations generally decreased from west to east.
- West of the parking lot, concentrations generally decreased from south to north.

Path Forward

The information gathered in this investigation will be used to develop an interim corrective measures study, which will evaluate remedial alternatives for the Gorham Street Area.

References

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Tables

Table 1
Sample Summary
July 2011, October 2011 and November 2011 Investigations
Former Hampshire Chemical Corp Facility, Waterloo, New York

Sampling Location	Sample Identification	Analysis	Sample Type	Sampling Method	Sample Depth (inches)	Sample Date
DE-13	DE-13B-07262011	Metals (As, Cd only)	N	Soil Composite	2-6	7/26/11
DE-13	DE-13C-07262011	Metals (As, Cd only)	N	Soil Composite	6-12	7/26/11
DE-13	DE-13D-07262011	Metals (As, Cd only)	N	Soil Composite	12-24	7/26/11
DE-13	DE-13E-07262011	Metals (As, Cd only)	N	Soil Composite	24-36	7/26/11
DE-13	DE-13F-07262011	Metals (As, Cd only)	N	Soil Composite	36-48	7/26/11
DE-13	DE-13G-07262011	Metals (As, Cd only)	N	Soil Composite	48-60	7/26/11
DE-13	DUP-SOIL-07262011	Metals (As, Cd only)	FD	Soil Composite	48-60	7/26/11
DE-14	DE-14B-07262011	Metals (As, Cd only)	N	Soil Composite	2-6	7/26/11
DE-14	DE-14C-07262011	Metals (As, Cd only)	N	Soil Composite	6-12	7/26/11
DE-14	DE-14D-07262011	Metals (As, Cd only)	N	Soil Composite	12-24	7/26/11
DE-14	DE-14E-07262011	Metals (As, Cd only)	N	Soil Composite	24-36	7/26/11
DE-14	DE-14F-07262011	Metals (As, Cd only)	N	Soil Composite	36-48	7/26/11
DE-14	DUP-SOIL-07262011	Metals (As, Cd only)	FD	Soil Composite	36-48	7/26/11
DE-14	DE-14G-07262011	Metals (As, Cd only)	N	Soil Composite	48-60	7/26/11
DE-15	DE-15B-07262011	Metals (As, Cd only)	N	Soil Composite	2-6	7/26/11
DE-15	DE-15C-07262011	Metals (As, Cd only)	N	Soil Composite	6-12	7/26/11
DE-15	DUP-SOIL-07262011	Metals (As, Cd only)	FD	Soil Composite	6-12	7/26/11
DE-16	DE-16E-07262011	Metals (As, Cd only)	N	Soil Composite	24-36	7/26/11
DE-16	DE-16G-07262011	Metals (As, Cd only)	N	Soil Composite	48-60	7/26/11
DE-17	DE-17A-07262011	Metals (As, Cd only)	N	Soil Composite	0-2	7/26/11
DE-17	DE-17B-07262011	Metals (As, Cd only)	N	Soil Composite	2-6	7/26/11
DE-17	DE-17C-07262011	Metals (As, Cd only)	N	Soil Composite	6-12	7/26/11
DE-17	DUP-SOIL-07262011	Metals (As, Cd only)	FD	Soil Composite	6-12	7/26/11
DE-17	DE-17D-07262011	Metals (As, Cd only)	N	Soil Composite	12-24	7/26/11
DE-17	DE-17E-07262011	Metals (As, Cd only)	N	Soil Composite	24-36	7/26/11
DE-17	DE-17F-07262011	Metals (As, Cd only)	N	Soil Composite	36-48	7/26/11
DE-17	DE-17G-07262011	Metals (As, Cd only)	N	Soil Composite	48-60	7/26/11
DE-17	DE-17G-07262011-MS/MSD	Metals (As, Cd only)	MS/SD	Soil Composite	48-60	7/26/11
DE-18	DE-18A-07252011	Metals (As, Cd only)	N	Soil Composite	0-2	7/25/11
DE-18	DE-18B-07252011	Metals (As, Cd only)	N	Soil Composite	2-6	7/25/11
DE-18	DE-18C-07252011	Metals (As, Cd only)	N	Soil Composite	6-12	7/25/11
DE-18	DE-18D-07252011	Metals (As, Cd only)	N	Soil Composite	12-24	7/25/11
DE-18	DUP-SOIL-07252011	Metals (As, Cd only)	FD	Soil Composite	12-24	7/25/11
DE-18	DE-18E-07252011	Metals (As, Cd only)	N	Soil Composite	24-36	7/25/11
DE-18	DE-18F-07252011	Metals (As, Cd only)	N	Soil Composite	36-48	7/25/11
DE-18	DE-18G-07252011	Metals (As, Cd only)	N	Soil Composite	48-60	7/25/11
DE-19	DE-19A-07252011	Metals (As, Cd only)	N	Soil Composite	0-2	7/25/11
DE-19	DE-19B-07252011	Metals (As, Cd only)	N	Soil Composite	2-6	7/25/11
DE-19	DE-19C-07252011	Metals (As, Cd only)	N	Soil Composite	6-12	7/25/11
DE-19	DE-19D-07252011	Metals (As, Cd only)	N	Soil Composite	12-24	7/25/11
DE-19	DUP-SOIL-07252011	Metals (As, Cd only)	FD	Soil Composite	12-24	7/25/11
DE-19	DE-19E-07252011	Metals (As, Cd only)	N	Soil Composite	24-36	7/25/11
DE-19	DE-19E-07252011-MS/MSD	Metals (As, Cd only)	MS/SD	Soil Composite	24-36	7/25/11
DE-19	DE-19F-07252011	Metals (As, Cd only)	N	Soil Composite	36-48	7/25/11
DE-19	DE-19G-07252011	Metals (As, Cd only)	N	Soil Composite	48-60	7/25/11
DE-20	DE-20A-07252011	Metals (As, Cd only)	N	Soil Composite	0-2	7/25/11
DE-20	DE-20G-07252011	Metals (As, Cd only)	N	Soil Composite	48-60	7/25/11
DE-21	DE-21A-07262011	Metals (As, Cd only)	N	Soil Composite	0-2	7/26/11
DE-21	DE-21B-07262011	Metals (As, Cd only)	N	Soil Composite	2-6	7/26/11
DE-21	DE-21C-07262011	Metals (As, Cd only)	N	Soil Composite	6-12	7/26/11
DE-21	DE-21D-07262011	Metals (As, Cd only)	N	Soil Composite	12-24	7/26/11
DE-21	DUP-SOIL-07262011	Metals (As, Cd only)	FD	Soil Composite	12-24	7/26/11
DE-21	DE-21E-07262011	Metals (As, Cd only)	N	Soil Composite	24-36	7/26/11
DE-21	DE-21E-07262011-MS/MSD	Metals (As, Cd only)	MS/SD	Soil Composite	24-36	7/26/11
DE-21	DE-21G-07262011	Metals (As, Cd only)	N	Soil Composite	48-60	7/26/11
DE-22	DE-22A-07252011	Metals (As, Cd only)	N	Soil Composite	0-2	7/26/11
DE-22	DE-22G-07252011	Metals (As, Cd only)	N	Soil Composite	48-60	7/26/11
DE-23	DE-23A-07262011	Metals (As, Cd only)	N	Soil Composite	0-2	7/26/11
DE-23	DE-23B-07262011	Metals (As, Cd only)	N	Soil Composite	2-6	7/26/11
DE-23	DE-23C-07262011	Metals (As, Cd only)	N	Soil Composite	6-12	7/26/11
DE-23	DE-23D-07262011	Metals (As, Cd only)	N	Soil Composite	12-24	7/26/11
DE-23	DE-23E-07262011	Metals (As, Cd only)	N	Soil Composite	24-36	7/26/11
DE-23	DUP-SOIL-07262011	Metals (As, Cd only)	FD	Soil Composite	24-36	7/26/11
DE-23	DE-23F-07262011	Metals (As, Cd only)	N	Soil Composite	36-48	7/26/11
DE-23	DE-23G-07262011	Metals (As, Cd only)	N	Soil Composite	48-60	7/26/11
DE-24	DE-24A-07252011	Metals (As, Cd only)	N	Soil Composite	0-2	7/26/11
DE-24	DE-24G-07252011	Metals (As, Cd only)	N	Soil Composite	48-60	7/26/11
DE-25	DE-25A-07262011	Metals (As, Cd only)	N	Soil Composite	0-2	7/26/11
DE-25	DE-25B-07262011	Metals (As, Cd only)	N	Soil Composite	2-6	7/26/11
DE-25	DE-25C-07262011	Metals (As, Cd only)	N	Soil Composite	6-12	7/26/11
DE-25	DUP-SOIL-07262011	Metals (As, Cd only)	FD	Soil Composite	6-12	7/26/11
DE-25	DE-25D-07262011	Metals (As, Cd only)	N	Soil Composite	12-24	7/26/11
DE-25	DE-25E-07262011	Metals (As, Cd only)	N	Soil Composite	24-36	7/26/11
DE-25	DE-25F-07262011	Metals (As, Cd only)	N	Soil Composite	36-48	7/26/11
DE-25	DE-25G-07262011	Metals (As, Cd only)	N	Soil Composite	48-60	7/26/11
DE-26	DE-26C-07262011	Metals (As, Cd only)	N	Soil Composite	6-12	7/27/11
DE-26	DE-26D-07262011	Metals (As, Cd only)	N	Soil Composite	12-24	7/27/11
DE-26	DE-26E-07262011	Metals (As, Cd only)	N	Soil Composite	24-36	7/27/11
DE-26	DE-26F-07262011	Metals (As, Cd only)	N	Soil Composite	36-48	7/27/11
DE-26	DE-26G-07262011	Metals (As, Cd only)	N	Soil Composite	48-60	7/27/11
DE-26	DE-26G-07262011-MS/SD	Metals (As, Cd only)	MS/SD	Soil Composite	48-60	7/27/11

Table 1
Sample Summary
July 2011, October 2011 and November 2011 Investigations
Former Hampshire Chemical Corp Facility, Waterloo, New York

Sampling Location	Sample Identification	Analysis	Sample Type	Sampling Method	Sample Depth (inches)	Sample Date
DE-27	DE-27A-10112011	Metals (As, Cd only)	N	Soil Composite	0-2	10/11/11
DE-27	DE-27B-10112011	Metals (As, Cd only)	N	Soil Composite	2-6	10/11/11
DE-27	DE-27C-10112011	Metals (As, Cd only)	N	Soil Composite	6-12	10/11/11
DE-27	DUP-SOIL-10112011	Metals (As, Cd only)	FD	Soil Composite	6-12	10/11/11
DE-27	DE-27D-10112011	Metals (As, Cd only)	N	Soil Composite	12-24	10/11/11
DE-27	DE-27E-10112011	Metals (As, Cd only)	N	Soil Composite	24-36	10/11/11
DE-27	DE-27F-10112011	Metals (As, Cd only)	N	Soil Composite	36-48	10/11/11
DE-27	DE-27G-10112011	Metals (As, Cd only)	N	Soil Composite	48-60	10/11/11
DE-28	DE-28A-10112011	Metals (As, Cd only)	N	Soil Composite	0-2	10/11/11
DE-28	DE-28B-10112011	Metals (As, Cd only)	N	Soil Composite	2-6	10/11/11
DE-28	DE-28C-10112011	Metals (As, Cd only)	N	Soil Composite	6-12	10/11/11
DE-28	DE-28D-10112011	Metals (As, Cd only)	N	Soil Composite	12-24	10/11/11
DE-28	DE-28E-10112011	Metals (As, Cd only)	N	Soil Composite	24-36	10/11/11
DE-28	DE-28F-10112011	Metals (As, Cd only)	N	Soil Composite	36-48	10/11/11
DE-28	DE-28G-10112011	Metals (As, Cd only)	N	Soil Composite	48-60	10/11/11
DE-29	DE-29A-10112011	Metals (As, Cd only)	N	Soil Composite	0-2	10/11/11
DE-29	DE-29B-10112011	Metals (As, Cd only)	N	Soil Composite	2-6	10/11/11
DE-29	DE-29C-10112011	Metals (As, Cd only)	N	Soil Composite	6-12	10/11/11
DE-29	DE-29D-10112011	Metals (As, Cd only)	N	Soil Composite	12-24	10/11/11
DE-29	DE-29E-10112011	Metals (As, Cd only)	N	Soil Composite	24-36	10/11/11
DE-29	DE-29E-10112011-MS/MSD	Metals (As, Cd only)	MS/SD	Soil Composite	24-36	10/11/11
DE-29	DE-29F-10112011	Metals (As, Cd only)	N	Soil Composite	36-48	10/11/11
DE-29	DE-29G-10112011	Metals (As, Cd only)	N	Soil Composite	48-60	10/11/11
DE-29	DUP-SOIL-10112011	Metals (As, Cd only)	FD	Soil Composite	48-60	10/11/11
DE-30	DE-30A-10102011	Metals (As, Cd only)	N	Soil Composite	0-2	10/10/11
DE-30	DE-30B-10102011	Metals (As, Cd only)	N	Soil Composite	2-6	10/10/11
DE-30	DE-30C-10102011	Metals (As, Cd only)	N	Soil Composite	6-12	10/10/11
DE-30	DE-30D-10102011	Metals (As, Cd only)	N	Soil Composite	12-24	10/10/11
DE-30	DE-30E-10102011	Metals (As, Cd only)	N	Soil Composite	24-36	10/10/11
DE-30	DE-30F-10102011	Metals (As, Cd only)	N	Soil Composite	36-48	10/10/11
DE-30	DE-30G-10102011	Metals (As, Cd only)	N	Soil Composite	48-60	10/10/11
DE-31	DE-31A-10102011	Metals (As, Cd only)	N	Soil Composite	0-2	10/10/11
DE-31	DE-31B-10102011	Metals (As, Cd only)	N	Soil Composite	2-6	10/10/11
DE-31	DE-31C-10102011	Metals (As, Cd only)	N	Soil Composite	6-12	10/10/11
DE-31	DE-31D-10102011	Metals (As, Cd only)	N	Soil Composite	12-24	10/10/11
DE-31	DE-31E-10102011	Metals (As, Cd only)	N	Soil Composite	24-36	10/10/11
DE-31	DUP-SOIL-10102011	Metals (As, Cd only)	FD	Soil Composite	24-36	10/10/11
DE-31	DE-31F-10102011	Metals (As, Cd only)	N	Soil Composite	36-48	10/10/11
DE-31	DE-31G-10102011	Metals (As, Cd only)	N	Soil Composite	48-60	10/10/11
DE-31	DE-31G-10102011-MS/MSD	Metals (As, Cd only)	MS/SD	Soil Composite	48-60	10/10/11
DE-32	DE-32A-10102011	Metals (As, Cd only)	N	Soil Composite	0-2	10/10/11
DE-32	DE-32B-10102011	Metals (As, Cd only)	N	Soil Composite	2-6	10/10/11
DE-32	DE-32C-10102011	Metals (As, Cd only)	N	Soil Composite	6-12	10/10/11
DE-32	DE-32D-10102011	Metals (As, Cd only)	N	Soil Composite	12-24	10/10/11
DE-32	DE-32D-10102011-MS/MSD	Metals (As, Cd only)	N	Soil Composite	12-24	10/10/11
DE-32	DE-32E-10102011	Metals (As, Cd only)	MS/SD	Soil Composite	24-36	10/10/11
DE-33	DE-33A-10102011	Metals (As, Cd only)	N	Soil Composite	0-2	10/10/11
DE-33	DE-33B-10102011	Metals (As, Cd only)	N	Soil Composite	2-6	10/10/11
DE-33	DE-33C-10102011	Metals (As, Cd only)	N	Soil Composite	6-12	10/10/11
DE-33	DE-33D-10102011	Metals (As, Cd only)	N	Soil Composite	12-24	10/10/11
DE-33	DE-33E-10102011	Metals (As, Cd only)	N	Soil Composite	24-36	10/10/11
DE-33	DE-33F-10102011	Metals (As, Cd only)	N	Soil Composite	36-48	10/10/11
DE-33	DE-33G-10102011	Metals (As, Cd only)	N	Soil Composite	48-60	10/10/11
DE-33	DUP-SOIL-10102011	Metals (As, Cd only)	FD	Soil Composite	48-60	10/10/11
DE-34	DE-34A-10142011	Metals (As, Cd only)	N	Soil Composite	0-2	10/14/11
DE-34	DE-34B-10142011	Metals (As, Cd only)	N	Soil Composite	2-6	10/14/11
DE-34	DE-34C-10142011	Metals (As, Cd only)	N	Soil Composite	6-12	10/14/11
DE-34	DE-34D-10142011	Metals (As, Cd only)	N	Soil Composite	12-24	10/14/11
DE-34	DE-34E-10142011	Metals (As, Cd only)	N	Soil Composite	24-36	10/14/11
DE-34	DE-34F-10142011	Metals (As, Cd only)	N	Soil Composite	36-48	10/14/11
DE-34	DUP-SOIL-10142011	Metals (As, Cd only)	FD	Soil Composite	36-48	10/14/11
DE-34	DE-34G-10142011	Metals (As, Cd only)	N	Soil Composite	48-60	10/14/11
DE-35	DE-35A-11292011	Metals (As, Cd only)	N	Soil Composite	0-2	11/29/11
DE-35	DE-35B-11292011	Metals (As, Cd only)	N	Soil Composite	2-6	11/29/11
DE-35	DE-35C-11292011	Metals (As, Cd only)	N	Soil Composite	6-12	11/29/11
DE-35	DE-35D-11292011	Metals (As, Cd only)	N	Soil Composite	12-22	11/29/11
DE-35	DUP-SOIL-11292011	Metals (As, Cd only)	FD	Soil Composite	12-22	11/29/11
DE-36	DE-36A-11292011	Metals (As, Cd only)	N	Soil Composite	0-2	11/29/11
DE-36	DE-36B-11292011	Metals (As, Cd only)	N	Soil Composite	2-6	11/29/11
DE-36	DE-36C-11292011	Metals (As, Cd only)	N	Soil Composite	6-12	11/29/11
DE-36	DE-36D-11292011	Metals (As, Cd only)	N	Soil Composite	12-24	11/29/11
DE-37	DE-37A-11292011	Metals (As, Cd only)	N	Soil Composite	0-2	11/29/11
DE-37	DE-37B-11292011	Metals (As, Cd only)	N	Soil Composite	2-6	11/29/11
DE-37	DE-37C-11292011	Metals (As, Cd only)	N	Soil Composite	6-12	11/29/11
DE-37	DE-37D-11292011	Metals (As, Cd only)	N	Soil Composite	12-24	11/29/11
DE-37	DE-37E-11292011	Metals (As, Cd only)	N	Soil Composite	24-30	11/29/11
EB	EB-SOIL-08032011	Metals (As, Cd only)	EB	Equipment Blank	--	8/3/11
EB	EB-SOIL-10112011	Metals (As, Cd only)	EB	Equipment Blank	--	10/11/11

NOTES:

TIC - Top of Inner Casing Elevation
EB - Equipment Blank, sample of equipment rinse at end of decontamination
NM - Not Measured
N/A - Not Applicable for this location/sample

Table 2

Summary of Analytical Results

North of Gorham Street Parking Lot

Former Hampshire Chemical Corp. Facility, Waterloo, New York

Sample Location	Sample Depth, in. Sample Date	0-2		2-6		6-12		12-24		24-36		36-48		48-60	
		As	Cd	As	Cd	As	Cd	As	Cd	As	Cd	As	Cd	As	Cd
DE-13	7/26/2011	--	--	3.37 J	0.346 U	24.1	0.573	21.6	0.365 J	4.4 J	0.406 U	7.21	0.389 U	4.73/4.05J	0.445U/0.42U
DE-14	7/26/2011	--	--	4.6	0.271 J	13	0.284 J	40	0.418	3.79 J	0.423 U	3.26J/3.05J	0.432U/0.415U	3.3 J	0.415 U
DE-27	10/11/2011	9.54	0.639	9.83	0.631	22.4/15.2	0.358J/0.362J	5.39	0.21 U	4.47	0.207 U	5.83	0.198 U	3.91 J	0.204 U
DE-28	10/11/2011	9.84	0.974	13	1.28	12.7	0.446 J	8.52	0.211 U	5.87	0.24 U	4.46	0.222 U	8.42	0.23 U
DE-35 ¹	11/29/2011	24	0.582	47.6	1.05	33.6	0.724	13.8/22.1	0.303J/0.335J	--	--	--	--	--	--

Notes:

All analytical results are in milligrams per kilogram (mg/kg)

Bold and Shading indicates the analyte exceeded the NYSDEC RUSCO Residential Screening Levels of 16 mg/kg for arsenic and 2.5 mg/kg for cadmium (NYSDEC, 2006 - 6NYCRR Part 375)

Green Shading indicates the parent sample was below screening criteria and the duplicate sample exceeded screening criteria

-- Interval not sampled

in. - inches below ground surface

0.673/2.56 - The second number designates duplicate results

J = The analyte was positively identified; the associated numerical value is the approximate concentration.

U - Not detected above the reporting limit

1 - DE-35 was sampled from 0-2, 2-6, 6-12, and 12-22 inches

Table 3

Summary of Analytical Results

Gorham Street Parking Lot - Central Area

Former Hampshire Chemical Corp. Facility, Waterloo, New York

Sample Location	Sample Depth, in. Sample Date	0-2		2-6		6-12		12-24		24-36		36-48		48-60	
		As	Cd	As	Cd	As	Cd	As	Cd	As	Cd	As	Cd	As	Cd
DE-15	7/26/2011	--	--	9.14	0.333 J	5.2/4.28	2.86/2.2	--	--	--	--	--	--	--	--
DE-16	7/26/2011	--	--	--	--	--	--	--	--	3.8	0.356 U	--	--	3.29 J	0.274 J

Notes:

All analytical results are in milligrams per kilogram (mg/kg)

Bold and Shading indicates the analyte exceeded the NYSDEC RUSCO Residential Screening Levels of 16 mg/kg for arsenic and 2.5 mg/kg for cadmium (NYSDEC, 2006 - 6NYCRR Part 375)

-- Interval not sampled

in. - inches below ground surface

0.673/2.56 - The second number designates duplicate results

J = The analyte was positively identified; the associated numerical value is the approximate concentration.

U - Not detected above the reporting limit

Table 4

Summary of Analytical Results

Gorham Street Parking Lot - West Area

Former Hampshire Chemical Corp. Facility, Waterloo, New York

Sample Location	Sample Depth, in. Sample Date	0-2		2-6		6-12		12-24		24-36		36-48		48-60	
		As	Cd	As	Cd	As	Cd	As	Cd	As	Cd	As	Cd	As	Cd
SS-19 ¹	8/14/2007	9.83	0.852	31.3	0.449	--	--	--	--	--	--	--	--	--	--
SS-20 ²	8/14/2007	17	2.87	33.4	6.17	--	--	--	--	--	--	--	--	--	--
DE-01	5/7/2009	10.5/10.1	1.1/1.02	12.9	1.09	16.7	0.397 J	13.3	0.551	23.2	1.34	--	--	--	--
DE-02	5/7/2009	42.2	5.63	38.6	2.27	17.7	1.02	--	--	--	--	--	--	--	--
DE-03 ³	5/7/2009	22.1	2.17	8.78	1.11	5.33	0.854	12.4	5.12	5.94	12.5	--	--	--	--
DE-04	5/7/2009	33.5	1.13	36.3	1.11	55.4	1.44	--	--	--	--	--	--	--	--
DE-10	12/9/2010	--	--	--	--	--	--	11.4 J	1.19 J	20.2	1.49	99.7	0.415 J	37.2J/145J	0.293J/0.767
DE-11	12/9/2010	--	--	--	--	--	--	7.02	0.954	33.3	3.8	435	1.06	33.7J/5.34J	4.84/5.33
DE-12	12/9/2010	--	--	--	--	--	--	18.4	1,150	13.2 J	111	10.9	3.63	5.8	3.23
DE-26	7/27/2011	--	--	--	--	4.89	0.37 U	8.84	0.301 J	48.4	1.25	56.2	0.444 U	60.2	0.458 U
DE-34	10/14/2011	19.4	0.609	17	0.668	14.2	37	49.3	0.645	8.36	0.231 J	7.82	3.96	15.8/9.08	0.673/2.56

Notes:

All analytical results are in milligrams per kilogram (mg/kg)

Bold and Shading indicates the analyte exceeded the NYSDEC RUSCO Residential Screening Levels of 16 mg/kg for arsenic and 2.5 mg/kg for cadmium (NYSDEC, 2006 - 6NYCRR Part 375)

Green Shading indicates the parent sample was below screening criteria and the duplicate sample exceeded screening criteria

-- Interval not sampled

0.673/2.56 - The second number designates duplicate results

in. - inches below ground surface

J = The analyte was positively identified; the associated numerical value is the approximate concentration.

U - Not detected above the reporting limit

1 - SS-19 was sampled from 0-2 and 2-18 inches

2 - SS-20 was sampled from 0-2 and 2-8 inches

3 - DE-03 was sampled from, 0-2, 2-6, 6-12, 12-24 and 24-29 inches

Table 5
 Summary of Analytical Results
 South of Gorham Street Parking Lot
 Former Hampshire Chemical Corp. Facility, Waterloo, New York

Sample Location	Sample Depth, in. Sample Date	0-2		2-6		6-12		12-24		24-36		36-48		48-60	
		As	Cd	As	Cd	As	Cd	As	Cd	As	Cd	As	Cd	As	Cd
DE-05	12/14/2010	47.7	2.12	137	1.73	30.2	1.15	64.8	4.55	43.9	2.89	12	2	39.6	2.21
DE-06	12/14/2010	139	2.44	228	3.64	155	2.28	12	10.4	10.6	8.34	36.5	4.75	39	2.74
DE-07	12/14/2010	205	1.21	101	7.74	145	1.25	176	2.93	8.32	78.1	6.77	14.8	17.8	39.8
DE-08	12/13/2010	85.9	2.81	62.6	2.46	84.6	1.97	111	6.74	97.7	2.74	22.6	10.7	98.4	3
DE-09	12/13/2010	33.9	12.2	26.1	7.81	45.4J/139J	2.5J/4.77J	86.1	4.38	5.65 J	30.9	7.07J/4.54J	33.9/22.8	5.04J/31.1J	99.2J/55.4J
DE-18	7/25/2011	57	19.3	104	7.1	409	10.9	65.8 / 52.7	46.4 / 50.3	68.8	168	16.3	11.2	7.35	4.31
DE-19	7/25/2011	61	16.6 J	32.7	34.7	119	8.39	77.4J/40.1J	2.82/2.97	4.65 J	0.529	5.1	0.313 J	6.83	1.34
DE-20	7/25/2011	10.6	6.24	--	--	--	--	--	--	--	--	--	--	7.28	23.3
DE-21	7/26/2011	73.1	24.8	205	16.1	103	2.54	53.5 / 40.9	123 / 172	12.8 J	8.67 J	--	--	5.07	9.94
DE-22	7/26/2011	77.1	10	--	--	--	--	--	--	--	--	--	--	5.22	8.96
DE-23	7/26/2011	45.5	2.88	35.4	1.39	28.3	1.02	3.81 J	2.14	4.4 / 3 J	6.04J/2.96J	3.74 J	18.6	3.39 J	0.569
DE-24	7/26/2011	57.2	14.5	--	--	--	--	--	--	--	--	--	--	49.5	1.41
DE-25	7/26/2011	78.5	8	76.3	1.44	18.7/18.5	0.418/0.602	33.8	2.77	4.46	0.322 J	4.88	0.444	4.03 J	1.24
DE-30	10/10/2011	92.9	5.02	73.8	3.22	99.9	1.63	122	1.1	38.6	0.361 J	16	0.801	2.77 J	1.04
DE-31	10/10/2011	137	6.79	86.4	1.3	31.2	0.443	11.2	0.505	4.52/7.26	0.987/1.52	1.95 J	0.231 J	2.51 J	22.8 J
DE-32	10/10/2011	66.7	8.87	43.8	7.8	13	1.77	11.7 J	1.33 J	6.71	1.17	--	--	--	--
DE-33	10/10/2011	19.3	2.52	43.5	1.71	10.4	1.34	4.66	0.492	1.9 U	0.566	--	--	--	--
DE-34	10/14/2011	19.4	0.609	17	0.668	14.2	37	49.3	0.645	8.36	0.231 J	7.82/9.08	3.96/2.56	15.8	0.673
DE-36	11/29/2011	13.6	1.4	23.6	0.886	14.2	2.95 J	9.2	0.382 J	--	--	--	--	--	--
DE-37 ¹	11/29/2011	20.3	1.66	23.7	0.919	3.5 J	1.09	8.64	0.372 J	3.68 J	0.237 J	--	--	--	--

Notes:
 All analytical results are in milligrams per kilogram (mg/kg)
Bold and Shading indicates the analyte exceeded the NYSDEC RUSCO Residential Screening Levels of 16 mg/kg for arsenic and 2.5 mg/kg for cadmium (NYSDEC, 2006 - 6NYCRR Part 375)
 Green Shading indicates the parent sample was below screening criteria and the duplicate sample exceeded screening criteria
 -- Interval not sampled
 in. - inches below ground surface
 0.673/2.56 - The second number designates duplicate results
 J = The analyte was positively identified; the associated numerical value is the approximate concentration.
 U - Not detected above the reporting limit
 1 - DE-37 was sampled from 0-2, 2-6, 6-12, 12-24 and 24-30 inches

Table 6

Summary of Analytical Results

East and Northeast of Gorham Street Parking Lot

Former Hampshire Chemical Corp. Facility, Waterloo, New York

Sample Location	Sample Depth, in. Sample Date	0-2		2-6		6-12		12-24		24-36		36-48		48-60	
		As	Cd	As	Cd	As	Cd	As	Cd	As	Cd	As	Cd	As	Cd
DE-17	7/26/2011	74.9	0.582	36	0.294 J	4.9/5.47	0.418U/0.413U	10.4	0.212 J	3.41 J	0.408 U	4.12	0.367 U	3.74 J	1.05
DE-29	10/11/2011	72.9	19.3	34.8	14.7	34.8 J	2.87 J	7.76	0.555	1.88 U	0.1888 U	2.63 J	0.187 J	2.85 J/2.87 J	1.02/0.961

Notes:

All analytical results are in milligrams per kilogram (mg/kg)

Bold and Shading indicates the analyte exceeded the NYSDEC RUSCO Residential Screening Levels of 16 mg/kg for arsenic and 2.5 mg/kg for cadmium (NYSDEC, 2006 - 6NYCRR Part 375)

0.673/2.56 - The second number designates duplicate results

in. - inches below ground surface

J = The analyte was positively identified; the associated numerical value is the approximate concentration.

U - Not detected above the reporting limit

Figures

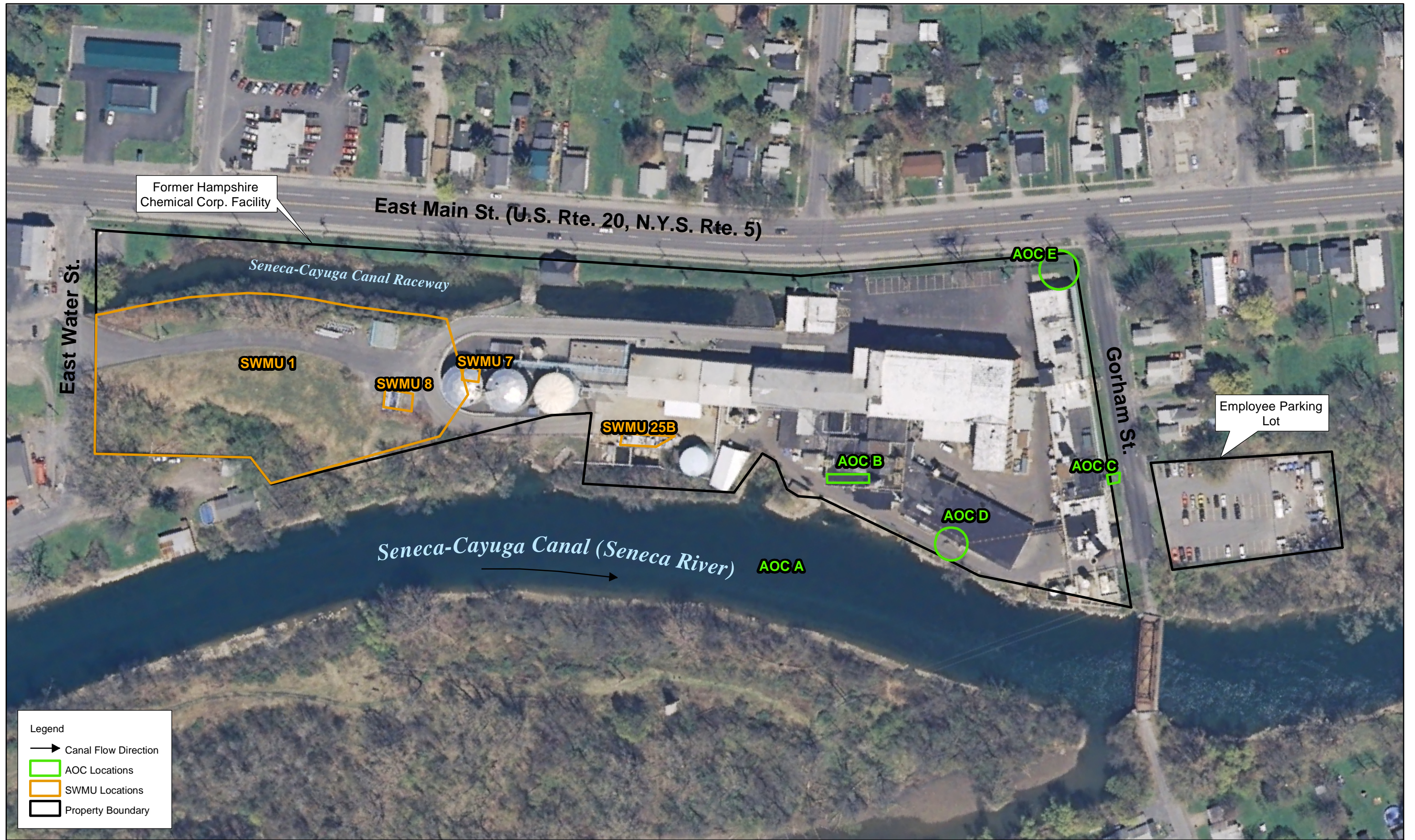


Figure 1
 Site Location Map
 Former Hampshire Chemical Corp. Facility
 Waterloo, New York



Figure 2
 Gorham Street Investigation Sample Locations
 Former Hampshire Chemical Corp. Facility
 Waterloo, New York

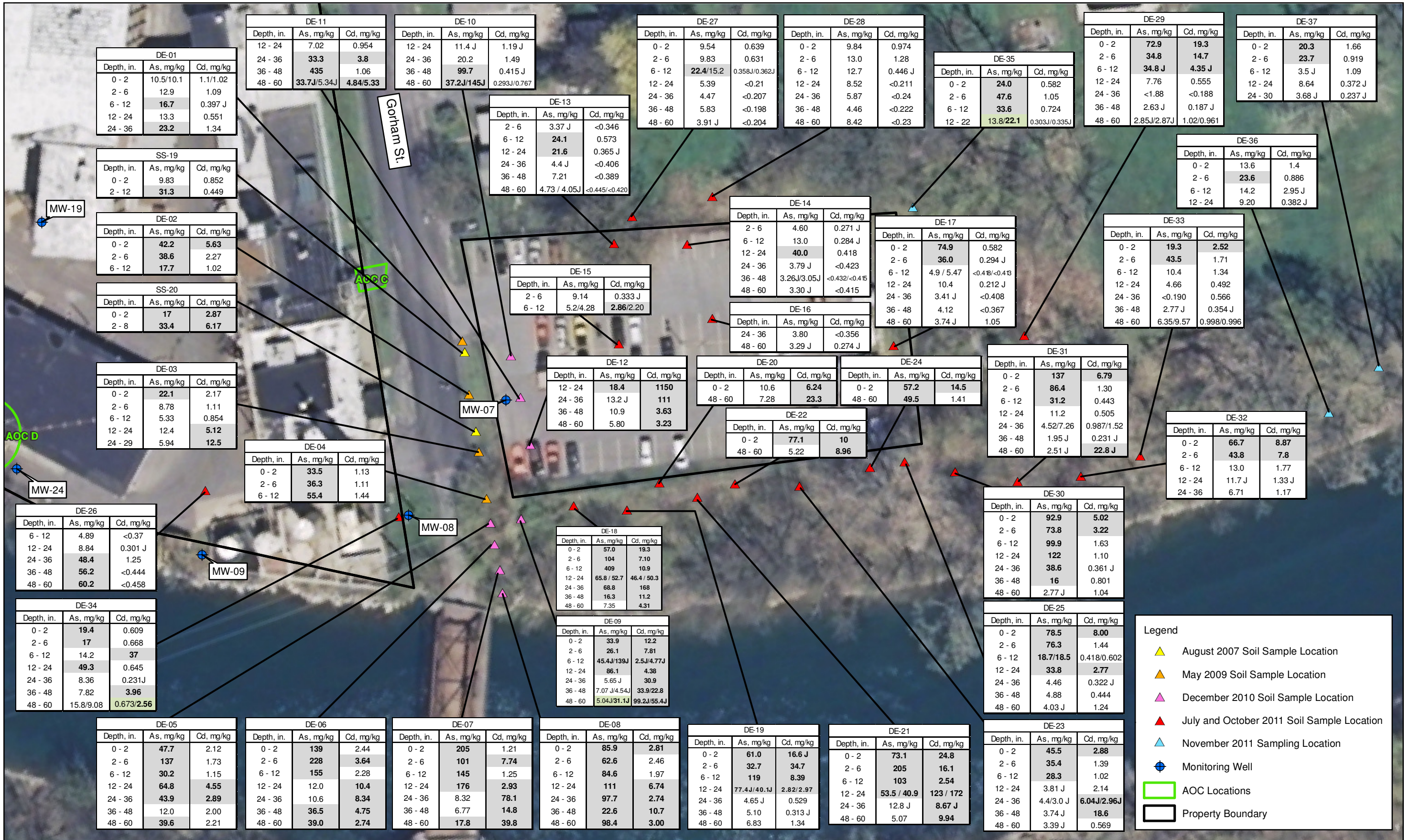


Figure 3
 Gorham Street Investigation Sampling Results
 Former Hampshire Chemical Corp. Facility
 Waterloo, New York

Attachment A
Boring Logs



PROJECT NUMBER: 416903	BORING NUMBER: DE-13	SHEET 1 OF 1
SOIL BORING LOG		

PROJECT : Gorham Street Investigation LOCATION : Former Hampshire Chemical Corp. Facility, Waterloo, New York (748257.3 N, 1057137.5 E)

ELEVATION : NA DRILLING CONTRACTOR : Parratt Wolff, Inc.

DRILLING METHOD AND EQUIPMENT : Kubota L4400 Tractor - Mounted Geoprobe - Direct Push

WATER LEVELS : --- START : 7/26/2011 END : 7/26/2011 LOGGER : M. Cunningham

DEPTH BELOW SURFACE AND ELEVATION (ft)	SAMPLE INTERVAL (ft)		SAMPLER (TYPE)	SOIL DESCRIPTION		GRAPHIC LOG	PID (ppm)	COMMENTS
	RECOVERY (ft)	SAMPLER (TYPE)		DEPTH INTERVAL, SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY				
				DEPTH INTERVAL	SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY			
5	3.5 4.0	R1	Silt with gravel (GW) 0-0.83' - 10 YR 4/1, dry, soft, decreasing gravel with depth Sand (SW) 0.83-1.42' - 10 YR 3/3, brown, dry, soft, nonplastic Silty Clay (CL) 1.42-3.5' - dry, very stiff, medium plasticity, cohesive		0			
	4.0		3.4-4' - no sample collected					
5	5.0	R1	Clay (CL) 4-5' - 10 YR 5/3, dry, hard to very stiff, cohesive, low to medium plasticity Bottom of Boring at 5.0 ft below ground surface		0			
10								
15								
20								



PROJECT NUMBER: 416903	BORING NUMBER: DE-14	SHEET 1 OF 1
SOIL BORING LOG		

PROJECT : Gorham Street Investigation LOCATION : Former Hampshire Chemical Corp. Facility, Waterloo, New York (748294.6 N, 1057123.5 E)

ELEVATION : NA DRILLING CONTRACTOR : Parratt Wolff, Inc.

DRILLING METHOD AND EQUIPMENT : Kubota L4400 Tractor - Mounted Geoprobe - Direct Push

WATER LEVELS : --- START : 7/26/2011 END : 7/26/2011 LOGGER : M. Cunningham

DEPTH BELOW SURFACE AND ELEVATION (ft)	SAMPLE INTERVAL (ft)			SOIL DESCRIPTION DEPTH INTERVAL, SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	GRAPHIC LOG	COMMENTS
	RECOVERY (ft)		SAMPLER (TYPE)			
				Asphalt 0-.17' Silty Sand with gravel (SM) 0.17-0.83' - 10 YR 5/1, gray, dry, subangular Silty Sand (SM) 0.83-1.67' - 10 YR 4/3, brown, dry, trace gravel, non-cohesive Silt (ML) 1.67-2' - 10 YR 5/8, yellowish-brown, dry, stiff, low plasticity, sand lense detected <1" Silty Clay (CL) 2-3.42' - 10 YR 4/3, brown, dry, hard, low plasticity 3.42-4' - no recovery Silty Clay (CL) 4-5' - 10 YR 4/2, dry, very stiff, low plasticity, cohesive, trace (+) / little (-) sand Bottom of Boring at 5.0 ft below ground surface		
		3.42 4.0	RI			
4.0						
5	5.0	1.0 1.0	R2			
10						
15						
20						



PROJECT NUMBER: 416903	BORING NUMBER: DE-15	SHEET 1 OF 1
SOIL BORING LOG		

PROJECT : Gorham Street Investigation LOCATION : Former Hampshire Chemical Corp. Facility, Waterloo, New York (748241.2 N, 1057085.4 E)

ELEVATION : NA DRILLING CONTRACTOR : Parratt Wolff, Inc.

DRILLING METHOD AND EQUIPMENT : Kubota L4400 Tractor - Mounted Geoprobe - Direct Push

WATER LEVELS : --- START : 7/26/2011 END : 7/26/2011 LOGGER : M. Cunningham

DEPTH BELOW SURFACE AND ELEVATION (ft)	SAMPLE INTERVAL (ft)		SAMPLER (TYPE)	SOIL DESCRIPTION	GRAPHIC LOG	COMMENTS
	RECOVERY (ft)			DEPTH INTERVAL, SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY		
5	4.0	3.5 4.0	R1	Asphalt 0-0.25'		
				Gravelly Silt (ML) 0.25-0.58' - 10 YR 2/2, very dark brown		
	Silty Clay (CL) 0.58-0.75' - 10 YR 5/2, grayish brown					
	Clay with gravel and sand (CL) 0.75-3.5' - 10 YR 3/2, dry, very hard, low plasticity, increasing grain size with depth, increasing moisture with depth, transitions to black color at bottom of recovery					
5	5.0	0.83 1.0	R2	3.5-4.0' - no recovery		
				Clay (CL) 4.0-4.8' - 10 YR 3/2, very dark grayish brown, dry, hard, low plasticity, white powder-like material (wet) and black organic silt noted at bottom of recovery		
				4.8-5' - no recovery		
				Bottom of Boring at 5.0 ft below ground surface		
10						
15						
20						



PROJECT NUMBER: 416903	BORING NUMBER: DE-16	SHEET 1 OF 1
SOIL BORING LOG		

PROJECT : Gorham Street Investigation LOCATION : Former Hampshire Chemical Corp. Facility, Waterloo, New York (748293.7 N, 1057081.0 E)
 ELEVATION : NA DRILLING CONTRACTOR : Parratt Wolff, Inc.
 DRILLING METHOD AND EQUIPMENT : Kubota L4400 Tractor - Mounted Geoprobe - Direct Push
 WATER LEVELS : --- START : 7/26/2011 END : 7/26/2011 LOGGER : M. Cunningham

DEPTH BELOW SURFACE AND ELEVATION (ft)	SAMPLE INTERVAL (ft)		SAMPLER (TYPE)	SOIL DESCRIPTION	GRAPHIC LOG	COMMENTS
	RECOVERY (ft)			DEPTH INTERVAL, SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY		
5	4.0	3.17 4.0	R1	Asphalt 0-0.25'		
				Gravelly Silt (GM) 0.25-0.5' - 10 YR 4/1, dry, soft		
	Gravelly Silt (GM) 0.5-1.5' - 10 YR 2/1, soft to medium stiff					
	Silt (ML) 1.5-2.08' - 10 YR 6/4, moist, very soft, slightly cohesive					
	Clay (CL) 2.08-3.17' - 10 YR 4/3, moist, stiff, medium plasticity, cohesive					
5.0	1.0 1.0	R2	3.17-4' - no recovery Clay (CL) 4-5' - Same as 2.08-3.17'			
				Bottom of Boring at 5.0 ft below ground surface		
10						
15						
20						



PROJECT NUMBER: 416903	BORING NUMBER: DE-17	SHEET 1 OF 1
SOIL BORING LOG		

PROJECT : Gorham Street Investigation LOCATION : Former Hampshire Chemical Corp. Facility, Waterloo, New York (748381.6 N, 1057033.2 E)

ELEVATION : NA DRILLING CONTRACTOR : Parratt Wolff, Inc.

DRILLING METHOD AND EQUIPMENT : Kubota L4400 Tractor - Mounted Geoprobe - Direct Push

WATER LEVELS : --- START : 7/26/2011 END : 7/26/2011 LOGGER : M. Cunningham

DEPTH BELOW SURFACE AND ELEVATION (ft)	SAMPLE INTERVAL (ft)		SAMPLER (TYPE)	SOIL DESCRIPTION	GRAPHIC LOG	PID (ppm)	COMMENTS
	RECOVERY (ft)			DEPTH INTERVAL, SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY			
5	4.0	3.33	R1	Sandy Silt (ML) 0-0.25' - 10 YR 4/1, dark yellowish brown, soft		0	
		4.0		Silty Sand (SM) 0.25-2.33' - 10 YR 4/1, dark gray, dry, very hard, dense			
5	5.0	1.0	R2	Gravel (GW) 2.33-3' - 10 YR 7/1, hard, cobble fragments		0	
		1.0		Clay (CL) 3-3.33' - 10 YR 4/3, brown, dry, friable, some gravel 3.33-4' - no recovery			
5	5.0	1.0	R2	Clay (CL) 4-4.42' - 10 YR 4/2, dry, hard, with sand		0	
		1.0		Silty Sand (SM) 4.42-5' - dark to light brown, dry, very stiff, some gravel, some glass, trace fibrous material (fill) Bottom of Boring at 5.0 ft below ground surface			
10							
15							
20							



PROJECT NUMBER: 416903	BORING NUMBER: DE-19	SHEET 1 OF 1
SOIL BORING LOG		

PROJECT : Gorham Street Investigation LOCATION : Former Hampshire Chemical Corp. Facility, Waterloo, New York (748214.5 N, 1056998.9 E)

ELEVATION : NA DRILLING CONTRACTOR : Parratt Wolff, Inc.

DRILLING METHOD AND EQUIPMENT : Kubota L4400 Tractor - Mounted Geoprobe - Direct Push

WATER LEVELS : --- START : 7/25/2011 END : 7/25/2011 LOGGER : M. Murphy

DEPTH BELOW SURFACE AND ELEVATION (ft)	SAMPLE INTERVAL (ft)		SAMPLER (TYPE)	SOIL DESCRIPTION		GRAPHIC LOG	PID (ppm)	COMMENTS
	RECOVERY (ft)			DEPTH INTERVAL, SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY				
4.0	3.58	4.0	R1	0-1.58' - 10 YR 4/6, brown, dry, trace coarse sand and gravel, subangular to subrounded, non-plastic/non-cohesive, color change to gray (10 YR 5/1) to dark yellowish brown (10 YR 4/6) with depth	[Hatched pattern]	0		
				1.58-3.67' - 10 YR 4/2, grayish brown, dry, hard (moderately cemented), medium plasticity, trace gravel (angular), trace apparent staining				
5.0			R2	3.67-4' - no recovery	[Hatched pattern]	0		
	0.5	1.0		4-4.5' - Same as 1.58-3.67				
				4.5-5' - no recovery				
				Bottom of Boring at 5.0 ft below ground surface				



PROJECT NUMBER: 416903	BORING NUMBER: DE-20	SHEET 1 OF 1
SOIL BORING LOG		

PROJECT : Gorham Street Investigation LOCATION : Former Hampshire Chemical Corp. Facility, Waterloo, New York (748236.0 N, 1057006.8 E)

ELEVATION : NA DRILLING CONTRACTOR : Parratt Wolff, Inc.

DRILLING METHOD AND EQUIPMENT : Kubota L4400 Tractor - Mounted Geoprobe - Direct Push

WATER LEVELS : --- START : 7/25/2011 END : 7/25/2011 LOGGER : M. Murphy

DEPTH BELOW SURFACE AND ELEVATION (ft)	SAMPLE INTERVAL (ft)		SAMPLER (TYPE)	SOIL DESCRIPTION		GRAPHIC LOG	PID (ppm)	COMMENTS
	RECOVERY (ft)			DEPTH INTERVAL, SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY				
5	3.17	4.0	R1	Silty Sand (SM) 0-0.5' - 10 YR 4/1, gray, dry, decreasing grain size with depth Silt with sand (ML) 0.5-2.5' - 10 YR 5/1, gray, dry, medium plasticity, cohesive, thinly bedded lenses of reddish brown/black dry, moderately cemented silt with sand noted with depth		0		
	4.0			Organic Silt (OL) 2.5-3.17' - 10 YR 2/1, black, moist, soft, cohesive, trace gravel/coarse sand, trace organic material, slight apparent odor 3.17-4' - no recovery		0		
5	5.0	1.0	R2	Organic Silt (OL) 4-5' - Same as 2.5-3.17 except bottom of recovery - silty clay with sand, gray Bottom of Boring at 5.0 ft below ground surface				
10								
15								
20								



PROJECT NUMBER: 416903	BORING NUMBER: DE-21	SHEET 1 OF 1
SOIL BORING LOG		

PROJECT : Gorham Street Investigation LOCATION : Former Hampshire Chemical Corp. Facility, Waterloo, New York (748252.8 N, 1056992.3 E)
 ELEVATION : NA DRILLING CONTRACTOR : Parratt Wolff, Inc.
 DRILLING METHOD AND EQUIPMENT : Kubota L4400 Tractor - Mounted Geoprobe - Direct Push
 WATER LEVELS : --- START : 7/26/2011 END : 7/26/2011 LOGGER : M. Cunningham

DEPTH BELOW SURFACE AND ELEVATION (ft)	SAMPLE INTERVAL (ft)		SAMPLER (TYPE)	SOIL DESCRIPTION	GRAPHIC LOG	PID (ppm)	COMMENTS
	RECOVERY (ft)			DEPTH INTERVAL, SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY			
5	4.0	<u>3.0</u> 4.0	R1	<p>Sandy Silt (ML) 0-1' - 10 YR 4/1, dark gray, dry, medium stiff to stiff, low plasticity, fine grain, non-cohesive, gradual transition from gray to brown to black with depth, fibrous material at 12", porous slag-like material (fill)</p> <p>Silty Clay (CL) 1-1.33' - 10YR 3/2, very dark grayish brown, dry, very stiff, low plasticity, fine, cohesive</p> <p>Silty Clay (CL) 1.33-3' - 10 YR 2/1, black, moist, medium dense, medium plasticity, fine grain, cohesive, slag-like material at 2.67'</p>		0	*2nd attempt was made to collect sample at interval 36-48". 8' of line was driven and 36-48" was sampled
	5.0	<u>1.0</u> 1.0	R2	<p>Clay (CL) 3-4' - 10 YR 4/3, brown, moist to wet, medium plasticity, pockets of medium sand, trace organic matter</p> <p>Clay with gravel (CL) 4-5' - 10 YR 4/3, brown, moist, very stiff, slow dilatancy, cohesive, variable brick and gravel fragments noted throughout recovery, some sand</p> <p>Bottom of Boring at 5.0 ft below ground surface</p>			
10							
15							
20							



PROJECT NUMBER: 416903	BORING NUMBER: DE-22	SHEET 1 OF 1
SOIL BORING LOG		

PROJECT : Gorham Street Investigation LOCATION : Former Hampshire Chemical Corp. Facility, Waterloo, New York (748274.5 N, 1056992.2 E)

ELEVATION : NA DRILLING CONTRACTOR : Parratt Wolff, Inc.

DRILLING METHOD AND EQUIPMENT : Kubota L4400 Tractor - Mounted Geoprobe - Direct Push

WATER LEVELS : --- START : 7/26/2011 END : 7/26/2011 LOGGER : M. Cunningham

DEPTH BELOW SURFACE AND ELEVATION (ft)	SAMPLE INTERVAL (ft)		SAMPLER (TYPE)	SOIL DESCRIPTION		GRAPHIC LOG	COMMENTS
	RECOVERY (ft)			DEPTH INTERVAL, SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY			
4.0	3.0	4.0	R1	Sandy Silt (ML) 0-0.5' - 10 YR 4/1, dark gray, dry, very soft, nonplastic, rapid dilatancy, non-cohesive	[Graphic Log: Dotted pattern]		
				Silty Sand (SM) 0.5-1.75' - 10 YR 5/3, brown, dry, medium dense, trace to little gravel, subangular, weak to mod cemented, friable			
5.0	4.0		R2	Silty Clay (CL) 1.75-3' - 10 YR 4/2, dark grayish brown, dry, hard, low to medium plasticity	[Graphic Log: Diagonal lines]		
	5.0	0.75 1.0		Silty Clay (CL) 4-4.75' - 10 YR 4/4, brown, dry, weakly cemented, friable, trace sand content, sand content increases with depth, trace cobbles (limestone)			
				3-4' - no recovery			
				4.75-5' - no recovery			
				Bottom of Boring at 5.0 ft below ground surface			



PROJECT NUMBER: 416903	BORING NUMBER: DE-23	SHEET 1 OF 1
SOIL BORING LOG		

PROJECT : Gorham Street Investigation LOCATION : Former Hampshire Chemical Corp. Facility, Waterloo, New York (748307.1 N, 1056979.2 E)

ELEVATION : NA DRILLING CONTRACTOR : Parratt Wolff, Inc.

DRILLING METHOD AND EQUIPMENT : Kubota L4400 Tractor - Mounted Geoprobe - Direct Push

WATER LEVELS : --- START : 7/26/2011 END : 7/26/2011 LOGGER : M. Cunningham

DEPTH BELOW SURFACE AND ELEVATION (ft)	SAMPLE INTERVAL (ft)		SAMPLER (TYPE)	SOIL DESCRIPTION		GRAPHIC LOG	PID (ppm)	COMMENTS
	RECOVERY (ft)			DEPTH INTERVAL, SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY				
5	4.0	3.5	R1	Sandy Silt (SM) 0-0.5' - 10 YR 6/1, gray, dry, nonplastic, rapid dilatancy, non-cohesive, uniform, gray slag-like material noted at top of recovery		0		
		4.0		Clay with sand (CL) 0.5-1' - 10 YR 6/1, grayish, dry, nonplastic, uniform, slag-like material noted throughout				
5	5.0	1.0	R2	Silty Clay with gravel (CL) 1-2.67' - 10 YR 4/1, dark gray, nonplastic, cohesive, friable, trace white sand at 2.25', trace gravel at 2.5'		0		
		1.0		Silty Clay (CL) 3-3.42' - 10 YR 4/3, brown, dry, weakly cemented, trace gravel				
				Clay with sand and gravel (CL) 4-5' - 10 YR 5/3, dry, medium soft, nonplastic, weak cementation, friable, cohesive Bottom of Boring at 5.0 ft below ground surface				



PROJECT NUMBER: 416903	BORING NUMBER: DE-24	SHEET 1 OF 1
SOIL BORING LOG		

PROJECT : Gorham Street Investigation LOCATION : Former Hampshire Chemical Corp. Facility, Waterloo, New York (748346.9 N, 1056975.5 E)

ELEVATION : NA DRILLING CONTRACTOR : Parratt Wolff, Inc.

DRILLING METHOD AND EQUIPMENT : Kubota L4400 Tractor - Mounted Geoprobe - Direct Push

WATER LEVELS : --- START : 7/26/2011 END : 7/26/2011 LOGGER : M. Cunningham

DEPTH BELOW SURFACE AND ELEVATION (ft)	SAMPLE INTERVAL (ft)		SAMPLER (TYPE)	SOIL DESCRIPTION		GRAPHIC LOG	PID (ppm)	COMMENTS
	RECOVERY (ft)			DEPTH INTERVAL, SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY				
4.0	2.42	4.0	R1	Sandy Silt (SM) 0-0.25' - 10 YR 3/1, very dark gray, dry, loose, wood fragments, roots Silty Sand (SM) 0.25-2.42' - 10 YR 6/1, gray, dry, loose, nonplastic, weak cementation, friable, brick fragments (fill)		0		
	2.42-4' - no recovery							
5	4.6	0.58 0.58	R2	Sandy Silt (SM) 4-4.58' - 10 YR 3/2, dark gray, dry, trace gravel, refusal at 4.5', boulder encountered gravel (limestone) noted at bottom of recovery Bottom of Boring at 4.6 ft below ground surface		0		
10								
15								
20								



PROJECT NUMBER: 416903	BORING NUMBER: DE-26	SHEET 1 OF 1
SOIL BORING LOG		

PROJECT : Gorham Street Investigation LOCATION : Former Hampshire Chemical Corp. Facility, Waterloo, New York (748002.0 N, 1057087.4 E)

ELEVATION : NA DRILLING CONTRACTOR : Parratt Wolff, Inc.

DRILLING METHOD AND EQUIPMENT : Kubota L4400 Tractor - Mounted Geoprobe - Direct Push

WATER LEVELS : --- START : 7/27/2011 END : 7/27/2011 LOGGER : M. Cunningham

DEPTH BELOW SURFACE AND ELEVATION (ft)	SAMPLE INTERVAL (ft)		SAMPLER (TYPE)	SOIL DESCRIPTION DEPTH INTERVAL, SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	GRAPHIC LOG	PID (ppm)	COMMENTS
	RECOVERY (ft)						
5	4.0	3.25 4.0	R1	Asphalt 0-0.5' - dry		0	
				Sand with gravel (SW) 0.5-1.33' - 10 YR 6/1, gray, dry, medium stiff, nonplastic, subangular, non-cohesive			
	Silty Clay (CL) 1.33-1.5' - 10 YR 4/4, nonplastic		0				
	Sand with gravel (SW) 1.5-3.25' - 10 YR 2/2, black, friable, mottling noted throughout, decreasing grain size with depth, trace cobbles						
5.0	1.0 1.0	R2	3.25-4' - no recovery		0		
				Sand with gravel (SW) 4-4.5' - 10 YR 3/2 to 10 YR 5/3, decreasing gravel content with depth, increasing brown with depth			
				Silty Clay (CL) 4.5-5' - 10 YR 2/2, very dark brown, wet, low plasticity, some sand, cohesive			
				Bottom of Boring at 5.0 ft below ground surface			



PROJECT NUMBER: 416903	BORING NUMBER: DE-27	SHEET 1 OF 1
SOIL BORING LOG		

PROJECT : Gorham Street Investigation LOCATION : Former Hampshire Chemical Corp. Facility, Waterloo, New York (748271.6 N, 1057148.0 E)

ELEVATION : NA DRILLING CONTRACTOR : Parratt Wolff, Inc.

DRILLING METHOD AND EQUIPMENT : Kubota L4400 Tractor - Mounted Geoprobe - Direct Push

WATER LEVELS : --- START : 10/11/2011 END : 10/11/2011 LOGGER : J. Balas

DEPTH BELOW SURFACE AND ELEVATION (ft)	SAMPLE INTERVAL (ft)			SOIL DESCRIPTION DEPTH INTERVAL, SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	GRAPHIC LOG	PID (ppm)	COMMENTS
	RECOVERY (ft)		SAMPLER (TYPE)				
				<p>Silt (OL) 0-1' - 10 YR 2/2, dark brown, dry, loose, some fine gravel (subangular to subrounded), poorly sorted, soft, organic material (peat, roots) noted at top of recovery, glass and ash-like material noted at bottom of interval (fill)</p> <p>Silt with clay (ML) 1-2.7' - 5 YR 3/3, dark reddish brown, dry, very stiff, nonplastic</p> <p>Silt with clay (ML) 2.7-4' - Same as 1-2.7 except 10 YR 6/6, light brown, with increasing fine sand with depth, white mottling (native?)</p> <p>Silt with clay (ML) 4-5' - 5 YR 3/3, dark reddish brown, dry, very stiff, nonplastic, some white mottling (native?)</p> <p>Bottom of Boring at 5.0 ft below ground surface</p>		0	
	3.8 4.0		R1				
4.0							
	1.0 1.0		R2				
5.0							
10							
15							
20							



PROJECT NUMBER:
416903

BORING NUMBER:
DE-29 SHEET 1 OF 1

SOIL BORING LOG

PROJECT : Gorham Street Investigation

LOCATION : Former Hampshire Chemical Corp. Facility, Waterloo, New York (748450.3 N, 1057014.1 E)

ELEVATION : NA

DRILLING CONTRACTOR : Parratt Wolff, Inc.

DRILLING METHOD AND EQUIPMENT : Kubota L4400 Tractor - Mounted Geoprobe - Direct Push

WATER LEVELS : ---

START : 10/11/2011

END : 10/11/2011

LOGGER : J. Balas

DEPTH BELOW SURFACE AND ELEVATION (ft)	SAMPLE INTERVAL (ft)			SOIL DESCRIPTION DEPTH INTERVAL, SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY	GRAPHIC LOG	PID (ppm)	COMMENTS
	RECOVERY (ft)	SAMPLER (TYPE)	DEPTH INTERVAL				
				DEPTH INTERVAL			
4.0	4.0	R1		Silt (ML) 0-1' - 10 YR 3/2, dark brown, dry, very soft, nonplastic, few fine gravel (subangular to subround), poorly graded, organic material (fill)		0	
	4.0			Silt (ML) 1-4' - 10 YR 6/3, pale brown, dry, firm, with fine sand (SM), some fine gravel, subangular to subround, trace root (fill)			
5.0	5.0	R2		Silt (ML) 4-5' - Same as 1-4 except (fill)			
				Bottom of Boring at 5.0 ft below ground surface			
10							
15							
20							



PROJECT NUMBER: 416903	BORING NUMBER: DE-31
SHEET 1 OF 1	
SOIL BORING LOG	

PROJECT : Gorham Street Investigation LOCATION : Former Hampshire Chemical Corp. Facility, Waterloo, New York (748419.7 N, 1056940.8 E)

ELEVATION : NA DRILLING CONTRACTOR : Parratt Wolff, Inc.

DRILLING METHOD AND EQUIPMENT : Kubota L4400 Tractor - Mounted Geoprobe - Direct Push

WATER LEVELS : --- START : 10/10/2011 END : 10/10/2011 LOGGER : J. Balas

DEPTH BELOW SURFACE AND ELEVATION (ft)	SAMPLE INTERVAL (ft)			SOIL DESCRIPTION	GRAPHIC LOG	PID (ppm)	COMMENTS
	RECOVERY (ft)		SAMPLER (TYPE)	DEPTH INTERVAL, SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY			
5	2.7 4.0		R2	<p>Silt (OL) 0-1.2' - 10 YR 3/2, brown, moist to dry, loose, some fine round to subangular gravel, poorly graded, organic material top .2'</p> <p>Silt (OL) 1.2-3' - 10 YR 6/2, light brownish gray, dry, very soft, nonplastic, few fine angular to round gravel, poorly graded, trace fine sand, trace brick pieces (fill)</p>		0	R1 = Refusal at 3' bgs, move 2' South PID = 0
	4.0		R3	<p>Sand (SM) 3-4' - 10 YR 7/2, very light brown, dry, very loose, fine grained, some silt, few gravel, poorly graded, trace organic material (roots)</p>			
	1.0 5.0			<p>Silt (OL) 4-5' - 10 YR 7/2, very light brown, dry, loose, some fine to medium gravel, few fine sand, poorly graded, trace clay</p> <p>Bottom of Boring at 5.0 ft below ground surface</p>			
10							
15							
20							



PROJECT NUMBER: 416903	BORING NUMBER: DE-32	SHEET 1 OF 1
<h2>SOIL BORING LOG</h2>		

PROJECT : Gorham Street Investigation LOCATION : Former Hampshire Chemical Corp. Facility, Waterloo, New York (748453.0 N, 1056931.7 E)
 ELEVATION : NA DRILLING CONTRACTOR : Parratt Wolff, Inc.
 DRILLING METHOD AND EQUIPMENT : Kubota L4400 Tractor - Mounted Geoprobe - Direct Push
 WATER LEVELS : --- START : 10/10/2011 END : 10/10/2011 LOGGER : J. Balas

DEPTH BELOW SURFACE AND ELEVATION (ft)	SAMPLE INTERVAL (ft)		SOIL DESCRIPTION	GRAPHIC LOG	COMMENTS
	RECOVERY (ft)	SAMPLER (TYPE)			
0 - 3.0	1.6 3.0		Silt (OL) 0-0.5' - 10 YR 3/2, dark brown, moist to dry, loose, few clay, organic material (tree roots) Silt (ML) 0.5-3' - 10 YR 5/2, grayish brown, dry, firm, some fine gravel (angular to round), poorly graded, trace clay, (fill)		R1 = refusal at 3', limestone in bottom of core - moved 5' south R2 = refusal at 3', no recovery - moved 5' east R3 = refusal at 3', end attempts PID = 0
3.0			Bottom of Boring at 3.0 ft below ground surface		
5					
10					
15					
20					



PROJECT NUMBER: 416903	BORING NUMBER: DE-33	SHEET 1 OF 1
SOIL BORING LOG		

PROJECT : Gorham Street Investigation LOCATION : Former Hampshire Chemical Corp. Facility, Waterloo, New York (748487.4 N, 1056930.8 E)

ELEVATION : NA DRILLING CONTRACTOR : Parratt Wolff, Inc.

DRILLING METHOD AND EQUIPMENT : Kubota L4400 Tractor - Mounted Geoprobe - Direct Push

WATER LEVELS : --- START : 10/10/2011 END : 10/10/2011 LOGGER : J. Balas

DEPTH BELOW SURFACE AND ELEVATION (ft)	SAMPLE INTERVAL (ft)			SOIL DESCRIPTION		GRAPHIC LOG	COMMENTS
	RECOVERY (ft)	SAMPLER (TYPE)	DEPTH INTERVAL, SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY				
4.0	2.8 4.0	R3	Silt (OL) 0-0.6' - 10 YR 3/2, dark brown, dry to moist, loose, organic material (wood), (fill)			R1 = Refusal at 2.5', moved 5' E R2 = Refusal at 3', moved 1.5' NW - shrubs and trees limited step out locations PID = 0	
			Silt (OL) 0.6-2.3' - 10 YR 5/2, light brown, dry, soft, few fine gravel (angular to subangular), well sorted				
5.0	0.7 1.0	R4	Sand (SW) 2.3-4' - 10 YR 8/2, very light brown, dry, loose, fine grained, some fine gravel (angular), some silt, well graded				
			Sand (SW) 4-5' - Same as 2.3-4 except fine grained, some fine gravel (angular to subangular) some silt Bottom of Boring at 5.0 ft below ground surface				
10							
15							
20							

Attachment B
Laboratory Data



Laboratory Report Number: L11080332

Shane Lowe
CH2MHILL, Inc
CH2MHILL
Richmond Heights, MO 63117

Please find enclosed the analytical results for the samples you submitted to Microbac Laboratories. Review and compilation of your report was completed by Microbac's Ohio Valley Division (OVD). If you have any questions, comments, or require further assistance regarding this report, please contact your service representative listed below.

This report was reviewed on September 01 2011

Kathy Albertson – Team Chemist/Data Specialist
(740) 373-4071
Kathy.Albertson@microbac.com

I certify that all test results meet all of the requirements of the accrediting authority listed below. All results for soil samples are reported on a 'dry-weight' basis unless specified otherwise. Analytical results for water and wastes are reported on a 'as received' basis unless specified otherwise. A statement of uncertainty for each analysis is available upon request. This laboratory report shall not be reproduced, except in full, without the written approval of Microbac Laboratories. The reported results are related only to the samples analyzed as received.

This report was certified on September 01 2011

David Vandenberg – Managing Director

State of Origin: NY
Accrediting Authority: Department of Health ID:10861
QAPP: WATERLOO



Record of Sample Receipt and Inspection

Comments/Discrepancies

This is record of the shipment conditions and the inspection records for the samples received and reported as a sample delivery group (SDG). All of the samples were inspected and observed to conform to our receipt policies, except as noted below.

The following discrepancies were noted:

Discrepancy	Resolution
The temperature was out of the acceptable range for the following samples	
The ice was melted	

Coolers

Cooler #	Temperature Gun	Temperature	COC #	Airbill #
0013995	G	23		34575023200000038685072156452157
001-000820	G	24		34575023200000038685072156232159
0014065	G	24		34575023200000038685072156342153

Inspection Checklist

#	Question	Result
1	Were shipping coolers sealed?	Yes
2	Were custody seals intact?	Yes
3	Were cooler temperatures in range of 0-6?	No
4	Was ice present?	No
5	Were COC's received/information complete/signed and dated?	Yes
6	Were sample containers intact and match COC?	Yes
7	Were sample labels intact and match COC?	Yes
8	Were the correct containers and volumes received?	Yes
9	Were samples received within EPA hold times?	Yes
10	Were correct preservatives used? (water only)	NA
11	Were pH ranges acceptable? (voa's excluded)	NA
12	Were VOA samples free of headspace (less than 6mm)?	NA

Samples Received

Client ID	Laboratory ID	Date Collected	Date Received
DE-17E-07262011	L11080332-01	07/26/2011 14:55	08/09/2011 10:49
DE-17F-07262011	L11080332-02	07/26/2011 14:57	08/09/2011 10:49
DE-17G-07262011	L11080332-03	07/26/2011 14:59	08/09/2011 10:49
DE-17G-07262011-MS	L11080332-04	07/26/2011 14:59	08/09/2011 10:49
DE-17G-07262011-MSD	L11080332-05	07/26/2011 14:59	08/09/2011 10:49
DE-18A-07252011	L11080332-06	07/25/2011 16:00	08/09/2011 10:49
DE-18B-07252011	L11080332-07	07/25/2011 16:03	08/09/2011 10:49
DE-18C-07252011	L11080332-08	07/25/2011 16:10	08/09/2011 10:49
DE-18D-07252011	L11080332-09	07/25/2011 16:12	08/09/2011 10:49
DE-18D-07252011-DUP	L11080332-10	07/25/2011 16:12	08/09/2011 10:49
DE-18E-07252011	L11080332-11	07/25/2011 16:18	08/09/2011 10:49
DE-18F-07252011	L11080332-12	07/25/2011 16:25	08/09/2011 10:49
DE-18G-07252011	L11080332-13	07/25/2011 16:30	08/09/2011 10:49
DE-19A-07252011	L11080332-14	07/25/2011 16:55	08/09/2011 10:49
DE-19B-07252011	L11080332-15	07/25/2011 16:57	08/09/2011 10:49
DE-19C-07252011	L11080332-16	07/25/2011 16:58	08/09/2011 10:49
DE-19D-07252011	L11080332-17	07/25/2011 17:00	08/09/2011 10:49
DE-19D-07252011-DUP	L11080332-18	07/25/2011 17:00	08/09/2011 10:49
DE-19E-07252011	L11080332-19	07/25/2011 17:06	08/09/2011 10:49
DE-19E-07252011-MS	L11080332-20	07/25/2011 17:06	08/09/2011 10:49
DE-19E-07252011-MSD	L11080332-21	07/25/2011 17:06	08/09/2011 10:49
DE-19F-07252011	L11080332-22	07/25/2011 17:09	08/09/2011 10:49
DE-19G-07252011	L11080332-23	07/25/2011 17:12	08/09/2011 10:49
DE-20A-07252011	L11080332-24	07/25/2011 17:30	08/09/2011 10:49
DE-20G-07252011	L11080332-25	07/25/2011 17:45	08/09/2011 10:49
DE-26C-07272011	L11080332-26	07/27/2011 09:30	08/09/2011 10:49
DE-26D-07272011	L11080332-27	07/27/2011 09:40	08/09/2011 10:49
DE-26E-07272011	L11080332-28	07/27/2011 09:48	08/09/2011 10:49
DE-26F-07272011	L11080332-29	07/27/2011 09:50	08/09/2011 10:49
DE-26G-07272011	L11080332-30	07/27/2011 10:00	08/09/2011 10:49
DE-26G-07272011-MS	L11080332-31	07/27/2011 10:00	08/09/2011 10:49
DE-26G-07272011-MSD	L11080332-32	07/27/2011 10:00	08/09/2011 10:49
DE-25A-07262011	L11080332-33	07/26/2011 13:45	08/09/2011 10:49
DE-25B-07262011	L11080332-34	07/26/2011 13:48	08/09/2011 10:49
DE-25C-07262011	L11080332-35	07/26/2011 13:51	08/09/2011 10:49
DE-25C-07262011-DUP	L11080332-36	07/26/2011 13:51	08/09/2011 10:49

Client ID	Laboratory ID	Date Collected	Date Received
DE-25D-07262011	L11080332-37	07/26/2011 14:00	08/09/2011 10:49
DE-25E-07262011	L11080332-38	07/26/2011 14:15	08/09/2011 10:49
DE-25F-07262011	L11080332-39	07/26/2011 14:20	08/09/2011 10:49
DE-25G-07262011	L11080332-40	07/26/2011 14:25	08/09/2011 10:49
DE-24A-07262011	L11080332-41	07/26/2011 11:20	08/09/2011 10:49
DE-24G-07262011	L11080332-42	07/26/2011 11:25	08/09/2011 10:49
DE-23A-07262011	L11080332-43	07/26/2011 10:45	08/09/2011 10:49
DE-23B-07262011	L11080332-44	07/26/2011 10:48	08/09/2011 10:49
DE-23C-07262011	L11080332-45	07/26/2011 10:51	08/09/2011 10:49
DE-23D-07262011	L11080332-46	07/26/2011 11:01	08/09/2011 10:49
DE-23E-07262011	L11080332-47	07/26/2011 11:06	08/09/2011 10:49
DE-23E-07262011-DUP	L11080332-48	07/26/2011 11:06	08/09/2011 10:49
DE-23F-07262011	L11080332-49	07/26/2011 13:15	08/09/2011 10:49
DE-23G-07262011	L11080332-50	07/26/2011 11:10	08/09/2011 10:49
DE-22A-07262011	L11080332-51	07/26/2011 10:08	08/09/2011 10:49
DE-22G-07262011	L11080332-52	07/26/2011 10:11	08/09/2011 10:49
DE-21A-07262011	L11080332-53	07/26/2011 09:39	08/09/2011 10:49
DE-21B-07262011	L11080332-54	07/26/2011 09:42	08/09/2011 10:49
DE-21C-07262011	L11080332-55	07/26/2011 09:46	08/09/2011 10:49
DE-21D-07262011	L11080332-56	07/26/2011 09:52	08/09/2011 10:49
DE-21D-07262011-DUP	L11080332-57	07/26/2011 09:52	08/09/2011 10:49
DE-21E-07262011	L11080332-58	07/26/2011 09:55	08/09/2011 10:49
DE-21E-07262011-MS	L11080332-59	07/26/2011 09:55	08/09/2011 10:49
DE-21E-07262011-MSD	L11080332-60	07/26/2011 09:55	08/09/2011 10:49
DE-21G-07262011	L11080332-61	07/26/2011 10:00	08/09/2011 10:49
DE-13B-07262011	L11080332-62	07/26/2011 16:08	08/09/2011 10:49
DE-13C-07262011	L11080332-63	07/26/2011 16:14	08/09/2011 10:49
DE-13D-07262011	L11080332-64	07/26/2011 16:20	08/09/2011 10:49
DE-13E-07262011	L11080332-65	07/26/2011 16:24	08/09/2011 10:49
DE-13E-07262011-MS	L11080332-66	07/26/2011 16:24	08/09/2011 10:49
DE-13E-07262011-MSD	L11080332-67	07/26/2011 16:24	08/09/2011 10:49
DE-13F-07262011	L11080332-68	07/26/2011 16:32	08/09/2011 10:49
DE-13G-07262011	L11080332-69	07/26/2011 16:35	08/09/2011 10:49
DE-13G-07262011-DUP	L11080332-70	07/26/2011 16:35	08/09/2011 10:49
DE-14B-07262011	L11080332-71	07/26/2011 15:25	08/09/2011 10:49
DE-14C-07262011	L11080332-72	07/26/2011 15:26	08/09/2011 10:49
DE-14D-07262011	L11080332-73	07/26/2011 15:32	08/09/2011 10:49

Client ID	Laboratory ID	Date Collected	Date Received
DE-14E-07262011	L11080332-74	07/26/2011 15:40	08/09/2011 10:49
DE-14F-07262011	L11080332-75	07/26/2011 15:45	08/09/2011 10:49
DE-14F-07262011-DUP	L11080332-76	07/26/2011 15:45	08/09/2011 10:49
DE-14G-07262011	L11080332-77	07/26/2011 15:55	08/09/2011 10:49
DE-15B-07262011	L11080332-78	07/26/2011 17:11	08/09/2011 10:49
DE-15G-07262011	L11080332-79	07/26/2011 17:21	08/09/2011 10:49
DE-15G-07262011-DUP	L11080332-80	07/26/2011 17:21	08/09/2011 10:49
DE-16B-07262011	L11080332-81	07/26/2011 17:34	08/09/2011 10:49
DE-16G-07262011	L11080332-82	07/26/2011 17:38	08/09/2011 10:49
DE-17A-07262011	L11080332-83	07/26/2011 14:35	08/09/2011 10:49
DE-17B-07262011	L11080332-84	07/26/2011 14:38	08/09/2011 10:49
DE-17C-07262011	L11080332-85	07/26/2011 14:46	08/09/2011 10:49
DE-17C-07262011-DUP	L11080332-86	07/26/2011 14:46	08/09/2011 10:49
DE-17D-07262011	L11080332-87	07/26/2011 14:52	08/09/2011 10:49



Login Number: L11080332

Department: Metals

Analyst: Ji Hu

Analyst #2: Pierce Morris

METHOD

Preparation: SW-846 3051

Analysis: SW-846 6010

HOLDING TIMES

Sample Preparation: All holding times were met.

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial Calibration: All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Interference Check Standards: All acceptance criteria were met.

Continuing Calibration Verification: All acceptance criteria were met.

Continuing Calibration Blank: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Serial Dilution/Post Digestion Spikes: WG372936 - All acceptance criteria were met.

WG373241 - All acceptance criteria were met.

WG373583 - All acceptance criteria were met.

WG373116 - All acceptance criteria were met.

WG373847 - All acceptance criteria were met.

WG373849 - All acceptance criteria were met.

Matrix Spikes: WG372936 - Sample 03 was chosen by the client for MS/MSD analysis. Samples 04(MS) and 05(MSD) met all acceptance criteria.

WG373241 - Sample 30 was chosen by the client for MS/MSD analysis. Samples 31(MS) and 32(MSD) yielded noncompliant recoveries for arsenic.

WG373116 - Sample 19 was chosen by the client for MS/MSD analysis. Samples 20(MS) and 21(MSD) yielded a noncompliant recovery for arsenic.

WG373849 - Sample 65 was chosen by the client for MS/MSD analysis. Samples 66(MS) and 67(MSD) yielded noncompliant recoveries for arsenic.

WG373847 - Sample 58 was chosen by the client for MS/MSD analysis. Samples 59(MS) and 60(MSD) yielded noncompliant recoveries for arsenic and lead and a noncompliant RPD for lead.

SAMPLES

Samples: WG373847 - Due to the dark color of the digestate, client sample 55 was analyzed at a dilution for all analytes.

WG373116 - Client sample 08 yielded results that were instrument flagged for uncorrected interference upon initial analysis. The sample was reanalyzed at a dilution on a later calibration for all analytes.

Narrative ID: 33478

Approved By: Maren Beery

Maren Beery

The following report lists the analytes that were manual integrated.

Reason Code Descriptions	
Code	Description
1	Data system fails to select the correct peak
2	Data system splits the peak incorrectly or integrates a false peak as a rider peak
3	Improperly integrated isomers and/or coeluting compounds
4	System established incorrect baseline
5	Miscellaneous

2.1 Metals Data

2.1.1 Metals I C P Data

2.1.1.1 Summary Data



Login Number: L11080332

Department: Metals

Analyst: Ji Hu

Analyst #2: Pierce Morris

METHOD

Preparation: SW-846 3051

Analysis: SW-846 6010

HOLDING TIMES

Sample Preparation: All holding times were met.

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial Calibration: All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Interference Check Standards: All acceptance criteria were met.

Continuing Calibration Verification: All acceptance criteria were met.

Continuing Calibration Blank: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Serial Dilution/Post Digestion Spikes: WG372936 - All acceptance criteria were met.

WG373241 - All acceptance criteria were met.

WG373583 - All acceptance criteria were met.

WG373116 - All acceptance criteria were met.

WG373847 - All acceptance criteria were met.

Server ID: 117983
Results ID: 9caf1017-9971-484a-87c5-b440f4ae96aa
Report ID: 33478

Generated at Aug 26, 2011 20:05

WG373849 - All acceptance criteria were met.

Matrix Spikes: WG372936 - Sample 03 was chosen by the client for MS/MSD analysis. Samples 04(MS) and 05(MSD) met all acceptance criteria.

WG373241 - Sample 30 was chosen by the client for MS/MSD analysis. Samples 31(MS) and 32(MSD) yielded noncompliant recoveries for arsenic.

WG373116 - Sample 19 was chosen by the client for MS/MSD analysis. Samples 20(MS) and 21(MSD) yielded a noncompliant recovery for arsenic.

WG373849 - Sample 65 was chosen by the client for MS/MSD analysis. Samples 66(MS) and 67(MSD) yielded noncompliant recoveries for arsenic.

WG373847 - Sample 58 was chosen by the client for MS/MSD analysis. Samples 59(MS) and 60(MSD) yielded noncompliant recoveries for arsenic and lead and a noncompliant RPD for lead.

SAMPLES

Samples: WG373847 - Due to the dark color of the digestate, client sample 55 was analyzed at a dilution for all analytes.

WG373116 - Client sample 08 yielded results that were instrument flagged for uncorrected interference upon initial analysis. The sample was reanalyzed at a dilution on a later calibration for all analytes.

Narrative ID: 33478

Approved By: Maren Beery

Maren Beery

LABORATORY REPORT

L11080332

09/01/11 11:16

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta, OH 45750
(740) 373-4071

For

Account Name: CH2MHILL, Inc
CH2MHILL
1034 S. Brentwood Blvd, Suite 2300
Richmond Heights, MO 63117
Attention: Shane Lowe

Project Number: 2736.103
Project: DOW WATERLOO Soil & GW
Site: WATERLOO
Invoice Number: 619844
P.O. Number: 416903-1

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
DE-17E-07262011	L11080332-01	6010B	1	09-AUG-11
DE-17F-07262011	L11080332-02	6010B	1	09-AUG-11
DE-17G-07262011	L11080332-03	6010B	1	09-AUG-11
DE-17G-07262011-MS	L11080332-04	6010B	1	09-AUG-11
DE-17G-07262011-MSD	L11080332-05	6010B	1	09-AUG-11
DE-18A-07252011	L11080332-06	6010B	1	09-AUG-11
DE-18B-07252011	L11080332-07	6010B	1	09-AUG-11
DE-18C-07252011	L11080332-08	6010B	2	09-AUG-11
DE-18D-07252011	L11080332-09	6010B	1	09-AUG-11
DE-18D-07252011-DUP	L11080332-10	6010B	1	09-AUG-11
DE-18E-07252011	L11080332-11	6010B	1	09-AUG-11
DE-18F-07252011	L11080332-12	6010B	1	09-AUG-11
DE-18G-07252011	L11080332-13	6010B	1	09-AUG-11
DE-19A-07252011	L11080332-14	6010B	1	09-AUG-11
DE-19B-07252011	L11080332-15	6010B	1	09-AUG-11
DE-19C-07252011	L11080332-16	6010B	1	09-AUG-11
DE-19D-07252011	L11080332-17	6010B	1	09-AUG-11
DE-19D-07252011-DUP	L11080332-18	6010B	1	09-AUG-11
DE-19E-07252011	L11080332-19	6010B	1	09-AUG-11
DE-19E-07252011-MS	L11080332-20	6010B	1	09-AUG-11
DE-19E-07252011-MSD	L11080332-21	6010B	1	09-AUG-11
DE-19F-07252011	L11080332-22	6010B	1	09-AUG-11
DE-19G-07252011	L11080332-23	6010B	1	09-AUG-11
DE-20A-07252011	L11080332-24	6010B	1	09-AUG-11
DE-20G-07252011	L11080332-25	6010B	1	09-AUG-11
DE-26C-07272011	L11080332-26	6010B	1	09-AUG-11
DE-26D-07272011	L11080332-27	6010B	1	09-AUG-11
DE-26E-07272011	L11080332-28	6010B	1	09-AUG-11

L1_A_PROD - Modified 03/06/2008
PDF File ID: 2135095
Report generated: 09/01/2011 11:16

1 OF 3



LABORATORY REPORT

L11080332

09/01/11 11:16

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
DE-26F-07272011	L11080332-29	6010B	1	09-AUG-11
DE-26G-07272011	L11080332-30	6010B	1	09-AUG-11
DE-26G-07272011-MS	L11080332-31	6010B	1	09-AUG-11
DE-26G-07272011-MSD	L11080332-32	6010B	1	09-AUG-11
DE-25A-07262011	L11080332-33	6010B	1	09-AUG-11
DE-25B-07262011	L11080332-34	6010B	1	09-AUG-11
DE-25C-07262011	L11080332-35	6010B	1	09-AUG-11
DE-25C-07262011-DUP	L11080332-36	6010B	1	09-AUG-11
DE-25D-07262011	L11080332-37	6010B	1	09-AUG-11
DE-25E-07262011	L11080332-38	6010B	1	09-AUG-11
DE-25F-07262011	L11080332-39	6010B	1	09-AUG-11
DE-25G-07262011	L11080332-40	6010B	1	09-AUG-11
DE-24A-07262011	L11080332-41	6010B	1	09-AUG-11
DE-24G-07262011	L11080332-42	6010B	1	09-AUG-11
DE-23A-07262011	L11080332-43	6010B	1	09-AUG-11
DE-23B-07262011	L11080332-44	6010B	1	09-AUG-11
DE-23C-07262011	L11080332-45	6010B	1	09-AUG-11
DE-23D-07262011	L11080332-46	6010B	1	09-AUG-11
DE-23E-07262011	L11080332-47	6010B	1	09-AUG-11
DE-23E-07262011-DUP	L11080332-48	6010B	1	09-AUG-11
DE-23F-07262011	L11080332-49	6010B	1	09-AUG-11
DE-23G-07262011	L11080332-50	6010B	1	09-AUG-11
DE-22A-07262011	L11080332-51	6010B	1	09-AUG-11
DE-22G-07262011	L11080332-52	6010B	1	09-AUG-11
DE-21A-07262011	L11080332-53	6010B	1	09-AUG-11
DE-21B-07262011	L11080332-54	6010B	1	09-AUG-11
DE-21C-07262011	L11080332-55	6010B	2	09-AUG-11
DE-21D-07262011	L11080332-56	6010B	1	09-AUG-11
DE-21D-07262011-DUP	L11080332-57	6010B	1	09-AUG-11
DE-21E-07262011	L11080332-58	6010B	1	09-AUG-11
DE-21E-07262011-MS	L11080332-59	6010B	1	09-AUG-11
DE-21E-07262011-MSD	L11080332-60	6010B	1	09-AUG-11
DE-21G-07262011	L11080332-61	6010B	1	09-AUG-11
DE-13B-07262011	L11080332-62	6010B	1	09-AUG-11
DE-13C-07262011	L11080332-63	6010B	1	09-AUG-11
DE-13D-07262011	L11080332-64	6010B	1	09-AUG-11
DE-13E-07262011	L11080332-65	6010B	1	09-AUG-11
DE-13E-07262011-MS	L11080332-66	6010B	1	09-AUG-11
DE-13E-07262011-MSD	L11080332-67	6010B	1	09-AUG-11
DE-13F-07262011	L11080332-68	6010B	1	09-AUG-11
DE-13G-07262011	L11080332-69	6010B	1	09-AUG-11
DE-13G-07262011-DUP	L11080332-70	6010B	1	09-AUG-11
DE-14B-07262011	L11080332-71	6010B	1	09-AUG-11
DE-14C-07262011	L11080332-72	6010B	1	09-AUG-11
DE-14D-07262011	L11080332-73	6010B	1	09-AUG-11

L1_A_PROD - Modified 03/06/2008
PDF File ID: 2135095
Report generated: 09/01/2011 11:16

2 OF 3



LABORATORY REPORT

L11080332

09/01/11 11:16

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
DE-14E-07262011	L11080332-74	6010B	1	09-AUG-11
DE-14F-07262011	L11080332-75	6010B	1	09-AUG-11
DE-14F-07262011-DUP	L11080332-76	6010B	1	09-AUG-11
DE-14G-07262011	L11080332-77	6010B	1	09-AUG-11
DE-15B-07262011	L11080332-78	6010B	1	09-AUG-11
DE-15G-07262011	L11080332-79	6010B	1	09-AUG-11
DE-15G-07262011-DUP	L11080332-80	6010B	1	09-AUG-11
DE-16B-07262011	L11080332-81	6010B	1	09-AUG-11
DE-16G-07262011	L11080332-82	6010B	1	09-AUG-11
DE-17A-07262011	L11080332-83	6010B	1	09-AUG-11
DE-17B-07262011	L11080332-84	6010B	1	09-AUG-11
DE-17C-07262011	L11080332-85	6010B	1	09-AUG-11
DE-17C-07262011-DUP	L11080332-86	6010B	1	09-AUG-11
DE-17D-07262011	L11080332-87	6010B	1	09-AUG-11

L1_A_PROD - Modified 03/06/2008
PDF File ID: 2135095
Report generated: 09/01/2011 11:16

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Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-01
 Client ID: DE-17E-07262011
 Matrix: Soil
 Workgroup Number: WG373116
 Collect Date: 07/26/2011 14:55
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: KHR
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 08/12/2011 08:53
 Cal Date: 08/22/2011 10:16
 Run Date: 08/22/2011 15:26
 File ID: T2.082211.152609
 Percent Solid: 90.3

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	3.41	J	4.08	2.04
Cadmium, Total	7440-43-9		U	0.408	0.204

U Not detected at or above adjusted sample detection limit.
 J Estimated value; the analyte concentration was less than the RL/LOQ.



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-02	PrePrep Method: NONE	Instrument: ICP-THERMO2
Client ID: DE-17F-07262011	Prep Method: 3051A	Prep Date: 08/12/2011 08:53
Matrix: Soil	Analytical Method: 6010B	Cal Date: 08/22/2011 10:16
Workgroup Number: WG373116	Analyst: KHR	Run Date: 08/22/2011 15:29
Collect Date: 07/26/2011 14:57	Dilution: 1	File ID: T2.082211.152931
Sample Tag: 01	Units: mg/kg	Percent Solid: 91.2

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	4.12		3.67	1.83
Cadmium, Total	7440-43-9		U	0.367	0.183

U Not detected at or above adjusted sample detection limit.



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-03	PrePrep Method: NONE	Instrument: ICP-THERMO2
Client ID: DE-17G-07262011	Prep Method: 3051A	Prep Date: 08/11/2011 07:38
Matrix: Soil	Analytical Method: 6010B	Cal Date: 08/11/2011 12:31
Workgroup Number: WG372936	Analyst: JYH	Run Date: 08/11/2011 13:25
Collect Date: 07/26/2011 14:59	Dilution: 1	File ID: T2.081111.132554
Sample Tag: 01	Units: mg/kg	Percent Solid: 89.1

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	3.74	J	3.95	1.98
Cadmium, Total	7440-43-9	1.05		0.395	0.198

J Estimated value; the analyte concentration was less than the RL/LOQ.



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-04
 Client ID: DE-17G-07262011-MS
 Matrix: Soil
 Workgroup Number: WG372936
 Collect Date: 07/26/2011 14:59
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: JYH
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 08/11/2011 07:37
 Cal Date: 08/11/2011 12:31
 Run Date: 08/11/2011 13:29
 File ID: T2.081111.132908
 Percent Solid: 89.1

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	11.2		3.95	1.98
Cadmium, Total	7440-43-9	2.12		0.395	0.198



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-05	PrePrep Method: NONE	Instrument: ICP-THERMO2
Client ID: DE-17G-07262011-MSD	Prep Method: 3051A	Prep Date: 08/11/2011 07:37
Matrix: Soil	Analytical Method: 6010B	Cal Date: 08/11/2011 12:31
Workgroup Number: WG372936	Analyst: JYH	Run Date: 08/11/2011 13:32
Collect Date: 07/26/2011 14:59	Dilution: 1	File ID: T2.081111.133224
Sample Tag: 01	Units: mg/kg	Percent Solid: 89.1

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	10.9		3.95	1.98
Cadmium, Total	7440-43-9	1.93		0.395	0.198



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-06
 Client ID: DE-18A-07252011
 Matrix: Soil
 Workgroup Number: WG373116
 Collect Date: 07/25/2011 16:00
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: KHR
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 08/12/2011 08:53
 Cal Date: 08/22/2011 10:16
 Run Date: 08/22/2011 15:32
 File ID: T2.082211.153252
 Percent Solid: 93.5

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	57.0		4.11	2.06
Cadmium, Total	7440-43-9	19.3		0.411	0.206



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-07
 Client ID: DE-18E-07252011
 Matrix: Soil
 Workgroup Number: WG373116
 Collect Date: 07/25/2011 16:03
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: KHR
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 08/12/2011 08:53
 Cal Date: 08/22/2011 10:16
 Run Date: 08/22/2011 15:36
 File ID: T2.082211.153625
 Percent Solid: 94.9

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	104		3.96	1.98
Cadmium, Total	7440-43-9	7.10		0.396	0.198



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-08
 Client ID: DE-18C-07252011
 Matrix: Soil
 Workgroup Number: WG373116
 Collect Date: 07/25/2011 16:10
 Sample Tag: DL01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: JYH
 Dilution: 2
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 08/12/2011 08:53
 Cal Date: 08/23/2011 08:52
 Run Date: 08/23/2011 11:40
 File ID: T2.082311.114000
 Percent Solid: 88.5

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	409		7.60	3.80
Cadmium, Total	7440-43-9	10.9		0.760	0.380



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-09
 Client ID: DE-18D-07252011
 Matrix: Soil
 Workgroup Number: WG373116
 Collect Date: 07/25/2011 16:12
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: KHR
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 08/12/2011 08:53
 Cal Date: 08/22/2011 10:16
 Run Date: 08/22/2011 15:43
 File ID: T2.082211.154309
 Percent Solid: 84.0

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	65.8		4.32	2.16
Cadmium, Total	7440-43-9	46.4		0.432	0.216



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-10
 Client ID: DE-18D-07252011-DUP
 Matrix: Soil
 Workgroup Number: WG373116
 Collect Date: 07/25/2011 16:12
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: KHR
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 08/12/2011 08:53
 Cal Date: 08/22/2011 10:16
 Run Date: 08/22/2011 15:53
 File ID: T2.082211.155335
 Percent Solid: 85.7

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	52.7		4.33	2.17
Cadmium, Total	7440-43-9	50.3		0.433	0.217



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-11
 Client ID: DE-18E-07252011
 Matrix: Soil
 Workgroup Number: WG373116
 Collect Date: 07/25/2011 16:18
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: KHR
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 08/12/2011 08:53
 Cal Date: 08/22/2011 10:16
 Run Date: 08/22/2011 15:57
 File ID: T2.082211.155709
 Percent Solid: 70.2

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	68.8		4.99	2.50
Cadmium, Total	7440-43-9	168		0.499	0.250



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-12
 Client ID: DE-18F-07252011
 Matrix: Soil
 Workgroup Number: WG373116
 Collect Date: 07/25/2011 16:25
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: KHR
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 08/12/2011 08:53
 Cal Date: 08/22/2011 10:16
 Run Date: 08/22/2011 16:00
 File ID: T2.082211.160045
 Percent Solid: 56.5

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	16.3		6.47	3.23
Cadmium, Total	7440-43-9	11.2		0.647	0.323



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-13
 Client ID: DE-18G-07252011
 Matrix: Soil
 Workgroup Number: WG373116
 Collect Date: 07/25/2011 16:30
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: KHR
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 08/12/2011 08:53
 Cal Date: 08/22/2011 10:16
 Run Date: 08/22/2011 16:04
 File ID: T2.082211.160414
 Percent Solid: 82.0

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	7.35		4.29	2.14
Cadmium, Total	7440-43-9	4.31		0.429	0.214



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-14
 Client ID: DE-19A-07252011
 Matrix: Soil
 Workgroup Number: WG373241
 Collect Date: 07/25/2011 16:55
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: PDM
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 08/12/2011 12:10
 Cal Date: 08/15/2011 16:22
 Run Date: 08/15/2011 22:16
 File ID: T2.081511.221623
 Percent Solid: 91.4

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	61.0		3.93	1.97
Cadmium, Total	7440-43-9	16.6		0.393	0.197



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-15
 Client ID: DE-19E-07252011
 Matrix: Soil
 Workgroup Number: WG373241
 Collect Date: 07/25/2011 16:57
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: PDM
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 08/12/2011 12:11
 Cal Date: 08/15/2011 16:22
 Run Date: 08/15/2011 22:29
 File ID: T2.081511.222938
 Percent Solid: 95.1

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	32.7		3.54	1.77
Cadmium, Total	7440-43-9	34.7		0.354	0.177



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-16
 Client ID: DE-19C-07252011
 Matrix: Soil
 Workgroup Number: WG373241
 Collect Date: 07/25/2011 16:58
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: PDM
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 08/12/2011 12:12
 Cal Date: 08/15/2011 16:22
 Run Date: 08/15/2011 22:32
 File ID: T2.081511.223254
 Percent Solid: 86.6

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	119		4.37	2.18
Cadmium, Total	7440-43-9	8.39		0.437	0.218



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-17
 Client ID: DE-19D-07252011
 Matrix: Soil
 Workgroup Number: WG373241
 Collect Date: 07/25/2011 17:00
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: PDM
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 08/12/2011 12:12
 Cal Date: 08/15/2011 16:22
 Run Date: 08/15/2011 22:36
 File ID: T2.081511.223610
 Percent Solid: 87.3

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	77.4		3.97	1.98
Cadmium, Total	7440-43-9	2.82		0.397	0.198



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-18	PrePrep Method: NONE	Instrument: ICP-THERMO2
Client ID: DE-19D-07252011-DUP	Prep Method: 3051A	Prep Date: 08/12/2011 12:12
Matrix: Soil	Analytical Method: 6010B	Cal Date: 08/15/2011 16:22
Workgroup Number: WG373241	Analyst: PDM	Run Date: 08/15/2011 22:39
Collect Date: 07/25/2011 17:00	Dilution: 1	File ID: T2.081511.223925
Sample Tag: 01	Units: mg/kg	Percent Solid: 86.6

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	40.1		4.30	2.15
Cadmium, Total	7440-43-9	2.97		0.430	0.215



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-19
 Client ID: DE-19E-07252011
 Matrix: Soil
 Workgroup Number: WG373116
 Collect Date: 07/25/2011 17:06
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: KHR
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 08/12/2011 08:53
 Cal Date: 08/22/2011 10:16
 Run Date: 08/22/2011 16:07
 File ID: T2.082211.160735
 Percent Solid: 84.8

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	4.65		4.41	2.21
Cadmium, Total	7440-43-9	0.529		0.441	0.221



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-20
 Client ID: DE-19E-07252011-MS
 Matrix: Soil
 Workgroup Number: WG373116
 Collect Date: 07/25/2011 17:06
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: KHR
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 08/12/2011 08:53
 Cal Date: 08/22/2011 10:16
 Run Date: 08/22/2011 16:11
 File ID: T2.082211.161103
 Percent Solid: 84.8

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	11.3		4.41	2.21
Cadmium, Total	7440-43-9	1.60		0.441	0.221



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-21	PrePrep Method: NONE	Instrument: ICP-THERMO2
Client ID: DE-19E-07252011-MSD	Prep Method: 3051A	Prep Date: 08/12/2011 08:53
Matrix: Soil	Analytical Method: 6010B	Cal Date: 08/22/2011 10:16
Workgroup Number: WG373116	Analyst: KHR	Run Date: 08/22/2011 16:14
Collect Date: 07/25/2011 17:06	Dilution: 1	File ID: T2.082211.161429
Sample Tag: 01	Units: mg/kg	Percent Solid: 84.8

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	12.4		4.41	2.21
Cadmium, Total	7440-43-9	1.41		0.441	0.221



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-22
 Client ID: DE-19F-07252011
 Matrix: Soil
 Workgroup Number: WG373241
 Collect Date: 07/25/2011 17:09
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: PDM
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 08/12/2011 12:13
 Cal Date: 08/15/2011 16:22
 Run Date: 08/15/2011 22:49
 File ID: T2.081511.224923
 Percent Solid: 85.3

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	5.10		4.08	2.04
Cadmium, Total	7440-43-9	0.313	J	0.408	0.204

J Estimated value; the analyte concentration was less than the RL/LOQ.



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-23
 Client ID: DE-19G-07252011
 Matrix: Soil
 Workgroup Number: WG373241
 Collect Date: 07/25/2011 17:12
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: PDM
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 08/12/2011 12:14
 Cal Date: 08/15/2011 16:22
 Run Date: 08/15/2011 22:52
 File ID: T2.081511.225250
 Percent Solid: 85.5

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	6.83		4.18	2.09
Cadmium, Total	7440-43-9	1.34		0.418	0.209



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-24
 Client ID: DE-20A-07252011
 Matrix: Soil
 Workgroup Number: WG373241
 Collect Date: 07/25/2011 17:30
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: PDM
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 08/12/2011 12:14
 Cal Date: 08/15/2011 16:22
 Run Date: 08/15/2011 22:56
 File ID: T2.081511.225606
 Percent Solid: 94.1

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	10.6		3.82	1.91
Cadmium, Total	7440-43-9	6.24		0.382	0.191



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-25
 Client ID: DE-20G-07252011
 Matrix: Soil
 Workgroup Number: WG373241
 Collect Date: 07/25/2011 17:45
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: PDM
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 08/12/2011 12:15
 Cal Date: 08/15/2011 16:22
 Run Date: 08/15/2011 22:59
 File ID: T2.081511.225925
 Percent Solid: 65.7

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	7.28		5.68	2.84
Cadmium, Total	7440-43-9	23.3		0.568	0.284



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-26
 Client ID: DE-26C-07272011
 Matrix: Soil
 Workgroup Number: WG373241
 Collect Date: 07/27/2011 09:30
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: PDM
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 08/12/2011 12:15
 Cal Date: 08/15/2011 16:22
 Run Date: 08/15/2011 23:02
 File ID: T2.081511.230243
 Percent Solid: 98.7

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	4.89		3.70	1.85
Cadmium, Total	7440-43-9		U	0.370	0.185

U Not detected at or above adjusted sample detection limit.



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-27
 Client ID: DE-26D-07272011
 Matrix: Soil
 Workgroup Number: WG373241
 Collect Date: 07/27/2011 09:40
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: PDM
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 08/12/2011 12:16
 Cal Date: 08/15/2011 16:22
 Run Date: 08/15/2011 23:06
 File ID: T2.081511.230608
 Percent Solid: 88.9

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	8.84		3.84	1.92
Cadmium, Total	7440-43-9	0.301	J	0.384	0.192

J Estimated value; the analyte concentration was less than the RL/LOQ.



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-28
 Client ID: DE-26E-07272011
 Matrix: Soil
 Workgroup Number: WG373241
 Collect Date: 07/27/2011 09:48
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: PDM
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 08/12/2011 12:16
 Cal Date: 08/15/2011 16:22
 Run Date: 08/15/2011 23:09
 File ID: T2.081511.230928
 Percent Solid: 86.0

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	48.4		4.40	2.20
Cadmium, Total	7440-43-9	1.25		0.440	0.220



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-29	PrePrep Method: NONE	Instrument: ICP-THERMO2
Client ID: DE-26F-07272011	Prep Method: 3051A	Prep Date: 08/12/2011 12:17
Matrix: Soil	Analytical Method: 6010B	Cal Date: 08/15/2011 16:22
Workgroup Number: WG373241	Analyst: PDM	Run Date: 08/15/2011 23:12
Collect Date: 07/27/2011 09:50	Dilution: 1	File ID: T2.081511.231258
Sample Tag: 01	Units: mg/kg	Percent Solid: 79.4

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	56.2		4.44	2.22
Cadmium, Total	7440-43-9		U	0.444	0.222

U Not detected at or above adjusted sample detection limit.



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-30
 Client ID: DE-26G-07272011
 Matrix: Soil
 Workgroup Number: WG373241
 Collect Date: 07/27/2011 10:00
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: PDM
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 08/12/2011 12:17
 Cal Date: 08/15/2011 16:22
 Run Date: 08/15/2011 23:16
 File ID: T2.081511.231623
 Percent Solid: 79.9

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	60.2		4.58	2.29
Cadmium, Total	7440-43-9		U	0.458	0.229

U Not detected at or above adjusted sample detection limit.



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-31
 Client ID: DE-26G-07272011-MS
 Matrix: Soil
 Workgroup Number: WG373241
 Collect Date: 07/27/2011 10:00
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: PDM
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 08/12/2011 12:09
 Cal Date: 08/15/2011 16:22
 Run Date: 08/15/2011 23:19
 File ID: T2.081511.231940
 Percent Solid: 79.9

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	89.5		4.58	2.29
Cadmium, Total	7440-43-9	1.18		0.458	0.229



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-32
 Client ID: DE-26G-07272011-MSD
 Matrix: Soil
 Workgroup Number: WG373241
 Collect Date: 07/27/2011 10:00
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: PDM
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 08/12/2011 12:09
 Cal Date: 08/15/2011 16:22
 Run Date: 08/15/2011 23:29
 File ID: T2.081511.232942
 Percent Solid: 79.9

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	79.4		4.58	2.29
Cadmium, Total	7440-43-9	1.19		0.458	0.229



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-33
 Client ID: DE-25A-07262011
 Matrix: Soil
 Workgroup Number: WG373241
 Collect Date: 07/26/2011 13:45
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: PDM
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 08/12/2011 12:20
 Cal Date: 08/15/2011 16:22
 Run Date: 08/15/2011 23:32
 File ID: T2.081511.233258
 Percent Solid: 83.8

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	78.5		4.46	2.23
Cadmium, Total	7440-43-9	8.00		0.446	0.223



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-34
 Client ID: DE-25E-07262011
 Matrix: Soil
 Workgroup Number: WG373241
 Collect Date: 07/26/2011 13:48
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: PDM
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 08/12/2011 12:23
 Cal Date: 08/15/2011 16:22
 Run Date: 08/15/2011 23:36
 File ID: T2.081511.233605
 Percent Solid: 95.4

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	76.3		3.85	1.93
Cadmium, Total	7440-43-9	1.44		0.385	0.193



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-35
 Client ID: DE-25C-07262011
 Matrix: Soil
 Workgroup Number: WG373241
 Collect Date: 07/26/2011 13:51
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: PDM
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 08/12/2011 12:24
 Cal Date: 08/15/2011 16:22
 Run Date: 08/15/2011 23:39
 File ID: T2.081511.233914
 Percent Solid: 94.9

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	18.7		4.03	2.01
Cadmium, Total	7440-43-9	0.418		0.403	0.201



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-36	PrePrep Method: NONE	Instrument: ICP-THERMO2
Client ID: DE-25C-07262011-DUP	Prep Method: 3051A	Prep Date: 08/12/2011 12:25
Matrix: Soil	Analytical Method: 6010B	Cal Date: 08/15/2011 16:22
Workgroup Number: WG373241	Analyst: PDM	Run Date: 08/15/2011 23:42
Collect Date: 07/26/2011 13:51	Dilution: 1	File ID: T2.081511.234222
Sample Tag: 01	Units: mg/kg	Percent Solid: 94.8

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	18.5		3.95	1.98
Cadmium, Total	7440-43-9	0.602		0.395	0.198



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-37
 Client ID: DE-25D-07262011
 Matrix: Soil
 Workgroup Number: WG373241
 Collect Date: 07/26/2011 14:00
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: PDM
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 08/12/2011 12:25
 Cal Date: 08/15/2011 16:22
 Run Date: 08/15/2011 23:45
 File ID: T2.081511.234531
 Percent Solid: 89.6

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	33.8		4.20	2.10
Cadmium, Total	7440-43-9	2.77		0.420	0.210



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-38
 Client ID: DE-25E-07262011
 Matrix: Soil
 Workgroup Number: WG373847
 Collect Date: 07/26/2011 14:15
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: KHR
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 08/15/2011 07:32
 Cal Date: 08/22/2011 10:16
 Run Date: 08/22/2011 18:39
 File ID: T2.082211.183939
 Percent Solid: 92.1

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	4.46		4.15	2.07
Cadmium, Total	7440-43-9	0.322	J	0.415	0.207

J Estimated value; the analyte concentration was less than the RL/LOQ.



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-39
 Client ID: DE-25F-07262011
 Matrix: Soil
 Workgroup Number: WG373847
 Collect Date: 07/26/2011 14:20
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: KHR
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 08/15/2011 07:32
 Cal Date: 08/22/2011 10:16
 Run Date: 08/22/2011 18:52
 File ID: T2.082211.185259
 Percent Solid: 90.3

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	4.88		4.13	2.06
Cadmium, Total	7440-43-9	0.444		0.413	0.206



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-40
 Client ID: DE-25G-07262011
 Matrix: Soil
 Workgroup Number: WG373847
 Collect Date: 07/26/2011 14:25
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: KHR
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 08/15/2011 07:32
 Cal Date: 08/22/2011 10:16
 Run Date: 08/22/2011 18:56
 File ID: T2.082211.185619
 Percent Solid: 90.3

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	4.03	J	4.05	2.03
Cadmium, Total	7440-43-9	1.24		0.405	0.203

J Estimated value; the analyte concentration was less than the RL/LOQ.



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-41
 Client ID: DE-24A-07262011
 Matrix: Soil
 Workgroup Number: WG373847
 Collect Date: 07/26/2011 11:20
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: KHR
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 08/15/2011 07:32
 Cal Date: 08/22/2011 10:16
 Run Date: 08/22/2011 18:59
 File ID: T2.082211.185939
 Percent Solid: 76.2

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	57.2		4.92	2.46
Cadmium, Total	7440-43-9	14.5		0.492	0.246



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-42
 Client ID: DE-24G-07262011
 Matrix: Soil
 Workgroup Number: WG373847
 Collect Date: 07/26/2011 11:25
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: KHR
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 08/15/2011 07:32
 Cal Date: 08/22/2011 10:16
 Run Date: 08/22/2011 19:02
 File ID: T2.082211.190257
 Percent Solid: 92.7

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	49.5		3.77	1.88
Cadmium, Total	7440-43-9	1.41		0.377	0.188



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-43
 Client ID: DE-23A-07262011
 Matrix: Soil
 Workgroup Number: WG373847
 Collect Date: 07/26/2011 10:45
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: KHR
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 08/15/2011 07:32
 Cal Date: 08/22/2011 10:16
 Run Date: 08/22/2011 19:12
 File ID: T2.082211.191254
 Percent Solid: 97.1

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	45.5		3.59	1.79
Cadmium, Total	7440-43-9	2.88		0.359	0.179



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-44
 Client ID: DE-23E-07262011
 Matrix: Soil
 Workgroup Number: WG373847
 Collect Date: 07/26/2011 10:48
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: KHR
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 08/15/2011 07:32
 Cal Date: 08/22/2011 10:16
 Run Date: 08/22/2011 19:16
 File ID: T2.082211.191604
 Percent Solid: 96.0

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	35.4		3.77	1.89
Cadmium, Total	7440-43-9	1.39		0.377	0.189



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-45
 Client ID: DE-23C-07262011
 Matrix: Soil
 Workgroup Number: WG373847
 Collect Date: 07/26/2011 10:51
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: KHR
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 08/15/2011 07:32
 Cal Date: 08/22/2011 10:16
 Run Date: 08/22/2011 19:19
 File ID: T2.082211.191915
 Percent Solid: 94.2

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	28.3		4.04	2.02
Cadmium, Total	7440-43-9	1.02		0.404	0.202



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-46
 Client ID: DE-23D-07262011
 Matrix: Soil
 Workgroup Number: WG373847
 Collect Date: 07/26/2011 11:01
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: KHR
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 08/15/2011 07:32
 Cal Date: 08/22/2011 10:16
 Run Date: 08/22/2011 19:22
 File ID: T2.082211.192231
 Percent Solid: 90.2

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	3.81	J	3.85	1.92
Cadmium, Total	7440-43-9	2.14		0.385	0.192

J Estimated value; the analyte concentration was less than the RL/LOQ.



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-47
 Client ID: DE-23E-07262011
 Matrix: Soil
 Workgroup Number: WG373847
 Collect Date: 07/26/2011 11:06
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: KHR
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 08/15/2011 07:32
 Cal Date: 08/22/2011 10:16
 Run Date: 08/22/2011 19:25
 File ID: T2.082211.192553
 Percent Solid: 91.4

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	4.40		4.20	2.10
Cadmium, Total	7440-43-9	6.04		0.420	0.210



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-48	PrePrep Method: NONE	Instrument: ICP-THERMO2
Client ID: DE-23E-07262011-DUP	Prep Method: 3051A	Prep Date: 08/15/2011 07:32
Matrix: Soil	Analytical Method: 6010B	Cal Date: 08/22/2011 10:16
Workgroup Number: WG373847	Analyst: KHR	Run Date: 08/22/2011 19:29
Collect Date: 07/26/2011 11:06	Dilution: 1	File ID: T2.082211.192915
Sample Tag: 01	Units: mg/kg	Percent Solid: 90.9

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	3.00	J	3.68	1.84
Cadmium, Total	7440-43-9	2.96		0.368	0.184

J Estimated value; the analyte concentration was less than the RL/LOQ.



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-49	PrePrep Method: NONE	Instrument: ICP-THERMO2
Client ID: DE-23F-07262011	Prep Method: 3051A	Prep Date: 08/15/2011 07:32
Matrix: Soil	Analytical Method: 6010B	Cal Date: 08/22/2011 10:16
Workgroup Number: WG373847	Analyst: KHR	Run Date: 08/22/2011 19:32
Collect Date: 07/26/2011 13:15	Dilution: 1	File ID: T2.082211.193236
Sample Tag: 01	Units: mg/kg	Percent Solid: 88.5

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	3.74	J	4.04	2.02
Cadmium, Total	7440-43-9	18.6		0.404	0.202

J Estimated value; the analyte concentration was less than the RL/LOQ.



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-50
 Client ID: DE-23G-07262011
 Matrix: Soil
 Workgroup Number: WG373847
 Collect Date: 07/26/2011 11:10
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: KHR
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 08/15/2011 07:32
 Cal Date: 08/22/2011 10:16
 Run Date: 08/22/2011 19:35
 File ID: T2.082211.193558
 Percent Solid: 91.1

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	3.39	J	3.83	1.91
Cadmium, Total	7440-43-9	0.569		0.383	0.191

J Estimated value; the analyte concentration was less than the RL/LOQ.



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-51
 Client ID: DE-22A-07262011
 Matrix: Soil
 Workgroup Number: WG373847
 Collect Date: 07/26/2011 10:08
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: KHR
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 08/15/2011 07:32
 Cal Date: 08/22/2011 10:16
 Run Date: 08/22/2011 19:39
 File ID: T2.082211.193920
 Percent Solid: 93.5

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	77.1		3.81	1.90
Cadmium, Total	7440-43-9	10.0		0.381	0.190



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-52
 Client ID: DE-22G-07262011
 Matrix: Soil
 Workgroup Number: WG373847
 Collect Date: 07/26/2011 10:11
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: KHR
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 08/15/2011 07:32
 Cal Date: 08/22/2011 10:16
 Run Date: 08/22/2011 19:42
 File ID: T2.082211.194238
 Percent Solid: 89.1

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	5.22		3.98	1.99
Cadmium, Total	7440-43-9	8.96		0.398	0.199



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-53
 Client ID: DE-21A-07262011
 Matrix: Soil
 Workgroup Number: WG373847
 Collect Date: 07/26/2011 09:39
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: KHR
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 08/15/2011 07:32
 Cal Date: 08/22/2011 10:16
 Run Date: 08/22/2011 19:52
 File ID: T2.082211.195245
 Percent Solid: 92.3

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	73.1		4.02	2.01
Cadmium, Total	7440-43-9	24.8		0.402	0.201



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-54
 Client ID: DE-21B-07262011
 Matrix: Soil
 Workgroup Number: WG373847
 Collect Date: 07/26/2011 09:42
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: KHR
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 08/15/2011 07:32
 Cal Date: 08/22/2011 10:16
 Run Date: 08/22/2011 19:56
 File ID: T2.082211.195604
 Percent Solid: 93.8

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	205		3.78	1.89
Cadmium, Total	7440-43-9	16.1		0.378	0.189



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-55
 Client ID: DE-21C-07262011
 Matrix: Soil
 Workgroup Number: WG373847
 Collect Date: 07/26/2011 09:46
 Sample Tag: DL01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: KHR
 Dilution: 2
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 08/15/2011 07:32
 Cal Date: 08/22/2011 10:16
 Run Date: 08/22/2011 19:59
 File ID: T2.082211.195931
 Percent Solid: 93.5

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	103		7.41	3.71
Cadmium, Total	7440-43-9	2.54		0.741	0.371



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-56
 Client ID: DE-21D-07262011
 Matrix: Soil
 Workgroup Number: WG373847
 Collect Date: 07/26/2011 09:52
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: KHR
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 08/15/2011 07:32
 Cal Date: 08/22/2011 10:16
 Run Date: 08/22/2011 20:02
 File ID: T2.082211.200251
 Percent Solid: 55.3

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	53.5		6.41	3.21
Cadmium, Total	7440-43-9	123		0.641	0.321



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-57
 Client ID: DE-21D-07262011-DUP
 Matrix: Soil
 Workgroup Number: WG373849
 Collect Date: 07/26/2011 09:52
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: KHR
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 08/15/2011 07:47
 Cal Date: 08/22/2011 10:16
 Run Date: 08/22/2011 16:41
 File ID: T2.082211.164114
 Percent Solid: 63.5

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	40.9		5.81	2.91
Cadmium, Total	7440-43-9	172		0.581	0.291



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-58
 Client ID: DE-21E-07262011
 Matrix: Soil
 Workgroup Number: WG373847
 Collect Date: 07/26/2011 09:55
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: KHR
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 08/15/2011 07:32
 Cal Date: 08/22/2011 10:16
 Run Date: 08/22/2011 20:06
 File ID: T2.082211.200628
 Percent Solid: 79.8

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	12.8		4.43	2.22
Cadmium, Total	7440-43-9	8.67		0.443	0.222



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-59
 Client ID: DE-21E-07262011-MS
 Matrix: Soil
 Workgroup Number: WG373847
 Collect Date: 07/26/2011 09:55
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: KHR
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 08/15/2011 07:32
 Cal Date: 08/22/2011 10:16
 Run Date: 08/22/2011 20:09
 File ID: T2.082211.200938
 Percent Solid: 79.8

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	18.4		4.43	2.22
Cadmium, Total	7440-43-9	9.99		0.443	0.222



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-60
 Client ID: DE-21E-07262011-MSD
 Matrix: Soil
 Workgroup Number: WG373847
 Collect Date: 07/26/2011 09:55
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: KHR
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 08/15/2011 07:32
 Cal Date: 08/22/2011 10:16
 Run Date: 08/22/2011 20:12
 File ID: T2.082211.201256
 Percent Solid: 79.8

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	16.1		4.43	2.22
Cadmium, Total	7440-43-9	5.57		0.443	0.222



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-61
 Client ID: DE-21G-07262011
 Matrix: Soil
 Workgroup Number: WG373849
 Collect Date: 07/26/2011 10:00
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: KHR
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 08/15/2011 07:47
 Cal Date: 08/22/2011 10:16
 Run Date: 08/22/2011 16:54
 File ID: T2.082211.165449
 Percent Solid: 77.7

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	5.07		4.87	2.44
Cadmium, Total	7440-43-9	9.94		0.487	0.244



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-62	PrePrep Method: NONE	Instrument: ICP-THERMO2
Client ID: DE-13E-07262011	Prep Method: 3051A	Prep Date: 08/15/2011 07:47
Matrix: Soil	Analytical Method: 6010B	Cal Date: 08/22/2011 10:16
Workgroup Number: WG373849	Analyst: KHR	Run Date: 08/22/2011 16:58
Collect Date: 07/26/2011 16:08	Dilution: 1	File ID: T2.082211.165810
Sample Tag: 01	Units: mg/kg	Percent Solid: 98.0

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	3.37	J	3.46	1.73
Cadmium, Total	7440-43-9		U	0.346	0.173

U Not detected at or above adjusted sample detection limit.
 J Estimated value; the analyte concentration was less than the RL/LOQ.



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-63
 Client ID: DE-13C-07262011
 Matrix: Soil
 Workgroup Number: WG373849
 Collect Date: 07/26/2011 16:14
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: KHR
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 08/15/2011 07:47
 Cal Date: 08/22/2011 10:16
 Run Date: 08/22/2011 17:01
 File ID: T2.082211.170132
 Percent Solid: 95.2

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	24.1		3.69	1.85
Cadmium, Total	7440-43-9	0.573		0.369	0.185



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-64	PrePrep Method: NONE	Instrument: ICP-THERMO2
Client ID: DE-13D-07262011	Prep Method: 3051A	Prep Date: 08/15/2011 07:47
Matrix: Soil	Analytical Method: 6010B	Cal Date: 08/22/2011 10:16
Workgroup Number: WG373849	Analyst: KHR	Run Date: 08/22/2011 17:04
Collect Date: 07/26/2011 16:20	Dilution: 1	File ID: T2.082211.170452
Sample Tag: 01	Units: mg/kg	Percent Solid: 89.2

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	21.6		4.24	2.12
Cadmium, Total	7440-43-9	0.365	J	0.424	0.212

J Estimated value; the analyte concentration was less than the RL/LOQ.



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-65	PrePrep Method: NONE	Instrument: ICP-THERMO2
Client ID: DE-13E-07262011	Prep Method: 3051A	Prep Date: 08/15/2011 07:47
Matrix: Soil	Analytical Method: 6010B	Cal Date: 08/22/2011 10:16
Workgroup Number: WG373849	Analyst: KHR	Run Date: 08/22/2011 17:14
Collect Date: 07/26/2011 16:24	Dilution: 1	File ID: T2.082211.171457
Sample Tag: 01	Units: mg/kg	Percent Solid: 90.6

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	4.40		4.06	2.03
Cadmium, Total	7440-43-9		U	0.406	0.203

U Not detected at or above adjusted sample detection limit.



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-66	PrePrep Method: NONE	Instrument: ICP-THERMO2
Client ID: DE-13E-07262011-MS	Prep Method: 3051A	Prep Date: 08/15/2011 07:47
Matrix: Soil	Analytical Method: 6010B	Cal Date: 08/22/2011 10:16
Workgroup Number: WG373849	Analyst: KHR	Run Date: 08/22/2011 17:18
Collect Date: 07/26/2011 16:24	Dilution: 1	File ID: T2.082211.171818
Sample Tag: 01	Units: mg/kg	Percent Solid: 90.6

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	10.9		4.06	2.03
Cadmium, Total	7440-43-9	0.903		0.406	0.203



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-67	PrePrep Method: NONE	Instrument: ICP-THERMO2
Client ID: DE-13E-07262011-MSD	Prep Method: 3051A	Prep Date: 08/15/2011 07:47
Matrix: Soil	Analytical Method: 6010B	Cal Date: 08/22/2011 10:16
Workgroup Number: WG373849	Analyst: KHR	Run Date: 08/22/2011 17:21
Collect Date: 07/26/2011 16:24	Dilution: 1	File ID: T2.082211.172135
Sample Tag: 01	Units: mg/kg	Percent Solid: 90.6

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	10.5		4.06	2.03
Cadmium, Total	7440-43-9	0.891		0.406	0.203



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-68	PrePrep Method: NONE	Instrument: ICP-THERMO2
Client ID: DE-13F-07262011	Prep Method: 3051A	Prep Date: 08/15/2011 07:47
Matrix: Soil	Analytical Method: 6010B	Cal Date: 08/22/2011 10:16
Workgroup Number: WG373849	Analyst: KHR	Run Date: 08/22/2011 17:24
Collect Date: 07/26/2011 16:32	Dilution: 1	File ID: T2.082211.172451
Sample Tag: 01	Units: mg/kg	Percent Solid: 88.0

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	7.21		3.89	1.94
Cadmium, Total	7440-43-9		U	0.389	0.194

U Not detected at or above adjusted sample detection limit.



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-69
 Client ID: DE-13G-07262011
 Matrix: Soil
 Workgroup Number: WG373849
 Collect Date: 07/26/2011 16:35
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: KHR
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 08/15/2011 07:47
 Cal Date: 08/22/2011 10:16
 Run Date: 08/22/2011 17:28
 File ID: T2.082211.172820
 Percent Solid: 82.1

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	4.73		4.45	2.22
Cadmium, Total	7440-43-9		U	0.445	0.222

U Not detected at or above adjusted sample detection limit.



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-70	PrePrep Method: NONE	Instrument: ICP-THERMO2
Client ID: DE-13G-07262011-DUP	Prep Method: 3051A	Prep Date: 08/15/2011 07:47
Matrix: Soil	Analytical Method: 6010B	Cal Date: 08/22/2011 10:16
Workgroup Number: WG373849	Analyst: KHR	Run Date: 08/22/2011 17:31
Collect Date: 07/26/2011 16:35	Dilution: 1	File ID: T2.082211.173149
Sample Tag: 01	Units: mg/kg	Percent Solid: 81.9

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	4.05	J	4.20	2.10
Cadmium, Total	7440-43-9		U	0.420	0.210

U Not detected at or above adjusted sample detection limit.
 J Estimated value; the analyte concentration was less than the RL/LOQ.



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-71	PrePrep Method: NONE	Instrument: ICP-THERMO2
Client ID: DE-14E-07262011	Prep Method: 3051A	Prep Date: 08/15/2011 07:47
Matrix: Soil	Analytical Method: 6010B	Cal Date: 08/22/2011 10:16
Workgroup Number: WG373849	Analyst: KHR	Run Date: 08/22/2011 17:35
Collect Date: 07/26/2011 15:25	Dilution: 1	File ID: T2.082211.173518
Sample Tag: 01	Units: mg/kg	Percent Solid: 95.1

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	4.60		3.67	1.84
Cadmium, Total	7440-43-9	0.271	J	0.367	0.184

J Estimated value; the analyte concentration was less than the RL/LOQ.



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-72
 Client ID: DE-14C-07262011
 Matrix: Soil
 Workgroup Number: WG373849
 Collect Date: 07/26/2011 15:26
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: KHR
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 08/15/2011 07:47
 Cal Date: 08/22/2011 10:16
 Run Date: 08/22/2011 17:38
 File ID: T2.082211.173850
 Percent Solid: 94.2

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	13.0		3.84	1.92
Cadmium, Total	7440-43-9	0.284	J	0.384	0.192

J Estimated value; the analyte concentration was less than the RL/LOQ.



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-73
 Client ID: DE-14D-07262011
 Matrix: Soil
 Workgroup Number: WG373849
 Collect Date: 07/26/2011 15:32
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: KHR
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 08/15/2011 07:47
 Cal Date: 08/22/2011 10:16
 Run Date: 08/22/2011 17:42
 File ID: T2.082211.174211
 Percent Solid: 87.5

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	40.0		4.04	2.02
Cadmium, Total	7440-43-9	0.418		0.404	0.202



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-74
 Client ID: DE-14E-07262011
 Matrix: Soil
 Workgroup Number: WG373849
 Collect Date: 07/26/2011 15:40
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: KHR
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 08/15/2011 07:47
 Cal Date: 08/22/2011 10:16
 Run Date: 08/22/2011 17:45
 File ID: T2.082211.174530
 Percent Solid: 86.9

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	3.79	J	4.23	2.11
Cadmium, Total	7440-43-9		U	0.423	0.211

U Not detected at or above adjusted sample detection limit.
 J Estimated value; the analyte concentration was less than the RL/LOQ.



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-75
 Client ID: DE-14F-07262011
 Matrix: Soil
 Workgroup Number: WG373849
 Collect Date: 07/26/2011 15:45
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: KHR
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 08/15/2011 07:47
 Cal Date: 08/22/2011 10:16
 Run Date: 08/22/2011 17:55
 File ID: T2.082211.175547
 Percent Solid: 88.8

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	3.26	J	4.32	2.16
Cadmium, Total	7440-43-9		U	0.432	0.216

U Not detected at or above adjusted sample detection limit.
 J Estimated value; the analyte concentration was less than the RL/LOQ.



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-76	PrePrep Method: NONE	Instrument: ICP-THERMO2
Client ID: DE-14F-07262011-DUP	Prep Method: 3051A	Prep Date: 08/15/2011 07:47
Matrix: Soil	Analytical Method: 6010B	Cal Date: 08/22/2011 10:16
Workgroup Number: WG373849	Analyst: KHR	Run Date: 08/22/2011 17:59
Collect Date: 07/26/2011 15:45	Dilution: 1	File ID: T2.082211.175900
Sample Tag: 01	Units: mg/kg	Percent Solid: 88.5

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	3.05	J	4.15	2.08
Cadmium, Total	7440-43-9		U	0.415	0.208

U Not detected at or above adjusted sample detection limit.
 J Estimated value; the analyte concentration was less than the RL/LOQ.



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-77
 Client ID: DE-14G-07262011
 Matrix: Soil
 Workgroup Number: WG373849
 Collect Date: 07/26/2011 15:55
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: KHR
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 08/15/2011 07:47
 Cal Date: 08/22/2011 10:16
 Run Date: 08/22/2011 18:02
 File ID: T2.082211.180222
 Percent Solid: 86.1

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	3.30	J	4.20	2.10
Cadmium, Total	7440-43-9		U	0.420	0.210

U Not detected at or above adjusted sample detection limit.
 J Estimated value; the analyte concentration was less than the RL/LOQ.



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-78	PrePrep Method: NONE	Instrument: ICP-THERMO2
Client ID: DE-15E-07262011	Prep Method: 3051A	Prep Date: 08/15/2011 07:47
Matrix: Soil	Analytical Method: 6010B	Cal Date: 08/22/2011 10:16
Workgroup Number: WG373849	Analyst: KHR	Run Date: 08/22/2011 18:05
Collect Date: 07/26/2011 17:11	Dilution: 1	File ID: T2.082211.180547
Sample Tag: 01	Units: mg/kg	Percent Solid: 94.5

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	9.14		3.96	1.98
Cadmium, Total	7440-43-9	0.333	J	0.396	0.198

J Estimated value; the analyte concentration was less than the RL/LOQ.



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-79
 Client ID: DE-15G-07262011
 Matrix: Soil
 Workgroup Number: WG373849
 Collect Date: 07/26/2011 17:21
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: KHR
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 08/15/2011 07:47
 Cal Date: 08/22/2011 10:16
 Run Date: 08/22/2011 18:09
 File ID: T2.082211.180907
 Percent Solid: 85.2

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	5.20		4.13	2.07
Cadmium, Total	7440-43-9	2.86		0.413	0.207



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-80	PrePrep Method: NONE	Instrument: ICP-THERMO2
Client ID: DE-15G-07262011-DUP	Prep Method: 3051A	Prep Date: 08/15/2011 07:47
Matrix: Soil	Analytical Method: 6010B	Cal Date: 08/22/2011 10:16
Workgroup Number: WG373849	Analyst: KHR	Run Date: 08/22/2011 18:12
Collect Date: 07/26/2011 17:21	Dilution: 1	File ID: T2.082211.181235
Sample Tag: 01	Units: mg/kg	Percent Solid: 85.5

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	4.28		4.08	2.04
Cadmium, Total	7440-43-9	2.20		0.408	0.204



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-81	PrePrep Method: NONE	Instrument: ICP-THERMO2
Client ID: DE-16E-07262011	Prep Method: 3051A	Prep Date: 08/15/2011 07:47
Matrix: Soil	Analytical Method: 6010B	Cal Date: 08/22/2011 10:16
Workgroup Number: WG373849	Analyst: KHR	Run Date: 08/22/2011 18:15
Collect Date: 07/26/2011 17:34	Dilution: 1	File ID: T2.082211.181559
Sample Tag: 01	Units: mg/kg	Percent Solid: 97.9

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	3.80		3.56	1.78
Cadmium, Total	7440-43-9		U	0.356	0.178

U Not detected at or above adjusted sample detection limit.



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-82
 Client ID: DE-16G-07262011
 Matrix: Soil
 Workgroup Number: WG373583
 Collect Date: 07/26/2011 17:38
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: PDM
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 08/15/2011 10:10
 Cal Date: 08/18/2011 10:51
 Run Date: 08/18/2011 14:47
 File ID: T2.081811.144731
 Percent Solid: 87.8

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	3.29	J	4.09	2.04
Cadmium, Total	7440-43-9	0.274	J	0.409	0.204

J Estimated value; the analyte concentration was less than the RL/LOQ.



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-83
 Client ID: DE-17A-07262011
 Matrix: Soil
 Workgroup Number: WG373583
 Collect Date: 07/26/2011 14:35
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: PDM
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 08/15/2011 10:11
 Cal Date: 08/18/2011 10:51
 Run Date: 08/18/2011 15:00
 File ID: T2.081811.150044
 Percent Solid: 94.8

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	74.9		3.92	1.96
Cadmium, Total	7440-43-9	0.582		0.392	0.196



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-84	PrePrep Method: NONE	Instrument: ICP-THERMO2
Client ID: DE-17B-07262011	Prep Method: 3051A	Prep Date: 08/15/2011 10:11
Matrix: Soil	Analytical Method: 6010B	Cal Date: 08/18/2011 10:51
Workgroup Number: WG373583	Analyst: PDM	Run Date: 08/18/2011 15:03
Collect Date: 07/26/2011 14:38	Dilution: 1	File ID: T2.081811.150356
Sample Tag: 01	Units: mg/kg	Percent Solid: 90.2

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	36.0		4.22	2.11
Cadmium, Total	7440-43-9	0.294	J	0.422	0.211

J Estimated value; the analyte concentration was less than the RL/LOQ.



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-85
 Client ID: DE-17C-07262011
 Matrix: Soil
 Workgroup Number: WG373583
 Collect Date: 07/26/2011 14:46
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: PDM
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 08/15/2011 10:12
 Cal Date: 08/18/2011 10:51
 Run Date: 08/18/2011 15:07
 File ID: T2.081811.150705
 Percent Solid: 90.9

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	4.90		4.18	2.09
Cadmium, Total	7440-43-9		U	0.418	0.209

U Not detected at or above adjusted sample detection limit.



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-86	PrePrep Method: NONE	Instrument: ICP-THERMO2
Client ID: DE-17C-07262011-DUP	Prep Method: 3051A	Prep Date: 08/15/2011 10:13
Matrix: Soil	Analytical Method: 6010B	Cal Date: 08/18/2011 10:51
Workgroup Number: WG373583	Analyst: PDM	Run Date: 08/18/2011 15:10
Collect Date: 07/26/2011 14:46	Dilution: 1	File ID: T2.081811.151020
Sample Tag: 01	Units: mg/kg	Percent Solid: 90.7

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	5.47		4.13	2.07
Cadmium, Total	7440-43-9		U	0.413	0.207

U Not detected at or above adjusted sample detection limit.



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-87
 Client ID: DE-17D-07262011
 Matrix: Soil
 Workgroup Number: WG373583
 Collect Date: 07/26/2011 14:52
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: PDM
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 08/15/2011 10:13
 Cal Date: 08/18/2011 10:51
 Run Date: 08/18/2011 15:20
 File ID: T2.081811.152030
 Percent Solid: 91.8

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	10.4		3.69	1.84
Cadmium, Total	7440-43-9	0.212	J	0.369	0.184

J Estimated value; the analyte concentration was less than the RL/LOQ.



2.1.1.2 QC Summary Data

Example 6010 Calculations
Perkin Elmer Optima 4300 DV

1.0 Initial Calibration (ICAL) Parameters

The system performs linear regression from data consisting of a blank and three standards.

2.0 Calculating the concentration (C) of an element in water using data from prep log, run log, and quantitation report (note:the data system performs this calculation automatically when correction factors have been entered):

$$Cx = Cs \times \frac{Vf}{Vi} \times D$$

Where:

Cs = Concentration computed by the data system in ug/mL (ppm)

Vf = Final volume (mL)

Vi = Initial volume (mL)

D = Dilution factor as a multiplier (10X = 10)

Cx = Concentration of element in ug/mL (mg/L)

Example:

0.1

50

50

1

0.1

3.0 Calculating the concentration (C) of an element in soil using data from prep log, run log, and quantitation report (note: the data system performs this calculation automatically when correction factors have been entered):

$$Cx = Cs \times \frac{Vf}{Vi} \times D$$

Where:

Cs = Concentration computed by the data system (mg/L) (ppm)

Vf = Final volume (mL)

Vi = Initial weight (g)

D = Dilution factor as a multiplier (10X = 10)

Cx = Concentration of element in ug/g (mg/kg)

Example:

0.1

50

1

1

5

4.0 Adjusting the concentration to dry weight:

$$Cdry = \frac{Cx \times 100}{Px}$$

Where:

Cx = Concentration calculated as received (wet basis)

Px = Percent solids of sample (%wt)

$Cdry$ = Concentration calculated as dry weight (mg/kg)

Example:

5

80

6.25

Example 6010 Calculations
Thermo Scientific IRIS Advantage

1.0 Initial Calibration (ICAL) Parameters

The system performs linear regression from data consisting of a blank and three standards.

2.0 Calculating the concentration (C) of an element in water using data from prep log, run log, and quantitation report (note:the data system performs this calculation automatically when correction factors have been entered):

$$Cx = Cs \times \frac{Vf}{Vi} \times D$$

Where:

Cs = Concentration computed by the data system in ug/mL (ppm)

Vf = Final volume (mL)

Vi = Initial volume (mL)

D = Dilution factor as a multiplier (10X = 10)

Cx = Concentration of element in ug/mL (mg/L)

Example:

0.1

50

50

1

0.1

3.0 Calculating the concentration (C) of an element in soil using data from prep log, run log, and quantitation report (note: the data system performs this calculation automatically when correction factors have been entered):

$$Cx = Cs \times \frac{Vf}{Vi} \times D$$

Where:

Cs = Concentration computed by the data system (mg/L) (ppm)

Vf = Final volume (mL)

Vi = Initial weight (g)

D = Dilution factor as a multiplier (10X = 10)

Cx = Concentration of element in ug/g (mg/kg)

Example:

0.1

50

1

1

5

4.0 Adjusting the concentration to dry weight:

$$Cdry = \frac{Cx \times 100}{Px}$$

Where:

Cx = Concentration calculated as received (wet basis)

Px = Percent solids of sample (%wt)

$Cdry$ = Concentration calculated as dry weight (mg/kg)

Example:

5

80

6.25

Example 6010 Calculations
Thermo Scientific iCAP 6500

1.0 Initial Calibration (ICAL) Parameters

For a multi-point calibration, the system performs linear regression from data consisting of a blank and four standards.

2.0 Calculating the concentration (C) of an element in water using data from prep log, run log, and quantitation report (note:the data system performs this calculation automatically when correction factors have been entered):

$$Cx = Cs \times \frac{Vf}{Vi} \times D$$

Where:

Cs = Concentration computed by the data system in ug/mL (ppm)

Vf = Final volume (mL)

Vi = Initial volume (mL)

D = Dilution factor as a multiplier (10X = 10)

Cx = Concentration of element in ug/mL (mg/L)

Example:

0.1

50

50

1

0.1

3.0 Calculating the concentration (C) of an element in soil using data from prep log, run log, and quantitation report (note: the data system performs this calculation automatically when correction factors have been entered):

$$Cx = Cs \times \frac{Vf}{Vi} \times D$$

Where:

Cs = Concentration computed by the data system (mg/L) (ppm)

Vf = Final volume (mL)

Vi = Initial weight (g)

D = Dilution factor as a multiplier (10X = 10)

Cx = Concentration of element in ug/g (mg/kg)

Example:

0.1

50

1

1

5

4.0 Adjusting the concentration to dry weight:

$$Cdry = \frac{Cx \times 100}{Px}$$

Where:

Cx = Concentration calculated as received (wet basis)

Px = Percent solids of sample (%wt)

$Cdry$ = Concentration calculated as dry weight (mg/kg)

Example:

5

80

6.25

Microbac Laboratories Inc.
Microwave Digestion Log

Workgroup: WG373152
Analyst: ERP
Spike Analyst: ERP
Run Date: 08/15/2011 07:47
Method: 3051A
Balance: BAL013
Instrument: MW-3

SOP: ME406 Revision 12
Spike Solution: STD47047
Spike Witness: REK
HNO3 Lot #: COA15474
HCL Lot #: COA15554
Digestion Tubes Lot #: COA15549

	SAMPLE #	Type	Matrix	Initial Amount	Final Volume	Initial Vessel Wt	Final Vessel Wt	Spike Amount	Due Date
1	WG373152-02	BLANK	7	1 g	50 mL	175.783 g	175.776 g		
2	WG373152-03	LCS	7	1 g	50 mL	181.637 g	181.638 g	5 mL	
3	L11080332-57	SAMP	7	1.354 g	50 mL	177.836 g	177.835 g		08/23/11
4	L11080332-61	SAMP	7	1.32 g	50 mL	178.643 g	178.532 g		08/23/11
5	L11080332-62	SAMP	7	1.475 g	50 mL	176.438 g	175.861 g		08/23/11
6	L11080332-63	SAMP	7	1.423 g	50 mL	178.421 g	178.413 g		08/23/11
7	L11080332-64	SAMP	7	1.322 g	50 mL	175.064 g	174.607 g		08/23/11
8	WG373152-01	REF	7	1.358 g	50 mL	179.843 g	179.649 g		
9	L11080332-65	RS05	7	1.358 g	50 mL	179.843 g	179.649 g		08/23/11
10	WG373152-04	MS	7	1.358 g	50 mL	181.317 g	181.127 g	5 mL	
11	L11080332-66	MS05	7	1.358 g	50 mL	181.317 g	181.127 g	5 mL	08/23/11
12	WG373152-05	MSD	7	1.358 g	50 mL	184.147 g	184.049 g	5 mL	
13	L11080332-67	SD05	7	1.358 g	50 mL	184.147 g	184.049 g	5 mL	08/23/11
14	L11080332-68	SAMP	7	1.461 g	50 mL	175.222 g	174.841 g		08/23/11
15	L11080332-69	SAMP	7	1.37 g	50 mL	177.563 g	177.398 g		08/23/11
16	L11080332-70	SAMP	7	1.454 g	50 mL	177.262 g	177.243 g		08/23/11
17	L11080332-71	SAMP	7	1.432 g	50 mL	177.931 g	177.652 g		08/23/11
18	L11080332-72	SAMP	7	1.382 g	50 mL	174.902 g	174.76 g		08/23/11
19	L11080332-73	SAMP	7	1.414 g	50 mL	177.573 g	177.483 g		08/23/11
20	L11080332-74	SAMP	7	1.361 g	50 mL	179.626 g	179.505 g		08/23/11
21	L11080332-75	SAMP	7	1.303 g	50 mL	176.891 g	176.478 g		08/23/11
22	L11080332-76	SAMP	7	1.36 g	50 mL	177.359 g	176.766 g		08/23/11
23	L11080332-77	SAMP	7	1.383 g	50 mL	178.767 g	178.327 g		08/23/11
24	L11080332-78	SAMP	7	1.335 g	50 mL	178.547 g	178.402 g		08/23/11
25	L11080332-79	SAMP	7	1.421 g	50 mL	179.081 g	179.023 g		08/23/11
26	L11080332-80	SAMP	7	1.434 g	50 mL	176.774 g	176.444 g		08/23/11
27	L11080332-81	SAMP	7	1.435 g	50 mL	177.203 g	176.943 g		08/23/11

Analyst: Eun Posen

Reviewer: Brenda Gregory



Microbac Laboratories Inc.
Microwave Digestion Log

Workgroup: WG373033
Analyst: REK
Spike Analyst: ERP
Run Date: 08/12/2011 08:53
Method: 3051A
Balance: BAL014
Instrument: MW-3

SOP: ME406 Revision 12
Spike Solution: STD46535
Spike Witness: BRG
HNO3 Lot #: COA15474
Digestion Tubes Lot #: COA15549
HCL Lot #: COA15554

	SAMPLE #	Type	Matrix	Initial Amount	Final Volume	Initial Vessel Wt	Final Vessel Wt	Spike Amount	Due Date
1	WG373033-02	BLANK	7	1 g	50 mL	176.125 g	176.115 g		
2	WG373033-03	LCS	7	1 g	50 mL	183.003 g	182.991 g	5 mL	
3	L11080300-12	SAMP	7	1.379 g	50 mL	177.265 g	177.212 g		08/23/11
4	L11080300-13	SAMP	7	1.316 g	50 mL	177.289 g	176.874 g		08/23/11
5	L11080300-14	SAMP	7	1.33 g	50 mL	178.666 g	178.156 g		08/23/11
6	L11080300-15	SAMP	7	1.323 g	50 mL	179.862 g	179.725 g		08/23/11
7	L11080300-16	SAMP	7	1.452 g	50 mL	177.037 g	176.898 g		08/23/11
8	L11080300-17	SAMP	7	1.372 g	50 mL	177.8 g	177.723 g		08/23/11
9	L11080300-18	SAMP	7	1.333 g	50 mL	176.984 g	176.248 g		08/23/11
10	L11080300-19	SAMP	7	1.425 g	50 mL	176.441 g	176.273 g		08/23/11
11	L11080300-20	SAMP	7	1.338 g	50 mL	176.393 g	175.867 g		08/23/11
12	L11080332-01	SAMP	7	1.357 g	50 mL	178.88 g	178.539 g		08/23/11
13	L11080332-02	SAMP	7	1.494 g	50 mL	177.095 g	176.55 g		08/23/11
14	L11080332-06	SAMP	7	1.3 g	50 mL	177.094 g	176.315 g		08/23/11
15	L11080332-07	SAMP	7	1.331 g	50 mL	177.575 g	177.428 g		08/23/11
16	L11080332-08	SAMP	7	1.488 g	50 mL	179.49 g	179.426 g		08/23/11
17	L11080332-09	SAMP	7	1.378 g	50 mL	178.572 g	178.527 g		08/23/11
18	L11080332-10	SAMP	7	1.347 g	50 mL	178.576 g	178.194 g		08/23/11
19	L11080332-11	SAMP	7	1.426 g	50 mL	179.397 g	179.377 g		08/23/11
20	L11080332-12	SAMP	7	1.368 g	50 mL	178.649 g	177.31 g		08/23/11
21	L11080332-13	SAMP	7	1.422 g	50 mL	176.588 g	176.351 g		08/23/11
22	WG373033-01	REF	7	1.337 g	50 mL	177.837 g	177.553 g		
23	L11080332-19	RS02	7	1.337 g	50 mL	177.837 g	177.553 g		08/23/11
24	WG373033-04	MS	7	1.337 g	50 mL	179.735 g	179.516 g	5 mL	
25	L11080332-20	MS02	7	1.337 g	50 mL	179.735 g	179.516 g	5 mL	08/23/11
26	WG373033-05	MSD	7	1.337 g	50 mL	181.847 g	181.722 g	5 mL	
27	L11080332-21	SD02	7	1.337 g	50 mL	181.847 g	181.722 g	5 mL	08/23/11

Analyst: *REK*

Reviewer: *Brenda Gregory*



Microbac Laboratories Inc.
Microwave Digestion Log

Workgroup: WG373087
Analyst: BRG
Spike Analyst: BRG
Run Date: 08/12/2011 12:26
Method: 3051A
Balance: BAL014
Instrument: MW-1

SOP: ME406 Revision 12
Spike Solution: STD46535
Spike Witness: REK
HNO3 Lot #: COA15474
Digestion Tubes Lot #: COA15549
HCL Lot #: COA15554

	SAMPLE #	Type	Matrix	Initial Amount	Final Volume	Initial Vessel Wt	Final Vessel Wt	Spike Amount	Due Date
1	WG373087-02	BLANK	7	1 g	50 mL	178.416 g	178.411 g		
2	WG373087-03	LCS	7	1 g	50 mL	182.06 g	182.056 g	5 mL	
3	L11080332-14	SAMP	7	1.391 g	50 mL	176.049 g	175.945 g		08/23/11
4	L11080332-15	SAMP	7	1.486 g	50 mL	178.214 g	178.209 g		08/23/11
5	L11080332-16	SAMP	7	1.321 g	50 mL	177.98 g	177.98 g		08/23/11
6	L11080332-17	SAMP	7	1.444 g	50 mL	176.287 g	176.274 g		08/23/11
7	L11080332-18	SAMP	7	1.342 g	50 mL	178.716 g	178.582 g		08/23/11
8	L11080332-22	SAMP	7	1.436 g	50 mL	177.182 g	177.119 g		08/23/11
9	L11080332-23	SAMP	7	1.398 g	50 mL	176.311 g	176.089 g		08/23/11
10	L11080332-24	SAMP	7	1.392 g	50 mL	176.978 g	176.926 g		08/23/11
11	L11080332-25	SAMP	7	1.34 g	50 mL	176.647 g	176.643 g		08/23/11
12	L11080332-26	SAMP	7	1.37 g	50 mL	176.262 g	176.011 g		08/23/11
13	L11080332-27	SAMP	7	1.464 g	50 mL	178.638 g	178.552 g		08/23/11
14	L11080332-28	SAMP	7	1.321 g	50 mL	176.479 g	176.409 g		08/23/11
15	L11080332-29	SAMP	7	1.418 g	50 mL	176.438 g	176.296 g		08/23/11
16	WG373087-01	REF	7	1.367 g	50 mL	179.382 g	179.179 g		
17	L11080332-30	RS03	7	1.367 g	50 mL	179.382 g	179.179 g		08/23/11
18	WG373087-04	MS	7	1.367 g	50 mL	181.913 g	181.865 g	5 mL	
19	L11080332-31	MS03	7	1.367 g	50 mL	181.913 g	181.865 g	5 mL	08/23/11
20	WG373087-05	MSD	7	1.367 g	50 mL	182.468 g	182.466 g	5 mL	
21	L11080332-32	SD03	7	1.367 g	50 mL	182.468 g	182.466 g	5 mL	08/23/11
22	L11080332-33	SAMP	7	1.339 g	50 mL	176.925 g	176.561 g		08/23/11
23	L11080332-34	SAMP	7	1.36 g	50 mL	177.14 g	177.098 g		08/23/11
24	L11080332-35	SAMP	7	1.309 g	50 mL	177.772 g	177.767 g		08/23/11
25	L11080332-36	SAMP	7	1.334 g	50 mL	179.939 g	179.468 g		08/23/11
26	L11080332-37	SAMP	7	1.328 g	50 mL	177.104 g	176.986 g		08/23/11
27	L11080382-01	SAMP	7	1.344 g	50 mL	177.469 g	177.384 g		08/17/11

Analyst: Brenda Gregory

Reviewer: [Signature]



Microbac Laboratories Inc.
Microwave Digestion Log

Workgroup: WG373151
Analyst: ERP
Spike Analyst: ERP
Run Date: 08/15/2011 07:32
Method: 3051A
Balance: BAL013
Instrument: MW-3

SOP: ME406 Revision 12
Spike Solution: STD46535
Spike Witness: BRG
HNO3 Lot #: COA15474
HCL Lot #: COA15554
Digestion Tubes Lot #: COA15549

	SAMPLE #	Type	Matrix	Initial Amount	Final Volume	Initial Vessel Wt	Final Vessel Wt	Spike Amount	Due Date
1	WG373151-02	BLANK	7	1 g	50 mL	173.6 g	173.592 g		
2	WG373151-03	LCS	7	1 g	50 mL	182.597 g	182.587 g	5 mL	
3	L11080332-38	SAMP	7	1.309 g	50 mL	177.082 g	176.777 g		08/23/11
4	L11080332-39	SAMP	7	1.341 g	50 mL	177.829 g	177.729 g		08/23/11
5	L11080332-40	SAMP	7	1.367 g	50 mL	178.861 g	178.48 g		08/23/11
6	L11080332-41	SAMP	7	1.333 g	50 mL	177.779 g	176.746 g		08/23/11
7	L11080332-42	SAMP	7	1.431 g	50 mL	176.849 g	176.475 g		08/23/11
8	L11080332-43	SAMP	7	1.436 g	50 mL	177.141 g	176.413 g		08/23/11
9	L11080332-44	SAMP	7	1.38 g	50 mL	178.837 g	178.335 g		08/23/11
10	L11080332-45	SAMP	7	1.313 g	50 mL	176.917 g	176.408 g		08/23/11
11	L11080332-46	SAMP	7	1.441 g	50 mL	178.689 g	178.515 g		08/23/11
12	L11080332-47	SAMP	7	1.303 g	50 mL	177.598 g	177.13 g		08/23/11
13	L11080332-48	SAMP	7	1.495 g	50 mL	177.421 g	177.275 g		08/23/11
14	L11080332-49	SAMP	7	1.399 g	50 mL	176.321 g	175.995 g		08/23/11
15	L11080332-50	SAMP	7	1.434 g	50 mL	179.82 g	179.509 g		08/23/11
16	L11080332-51	SAMP	7	1.405 g	50 mL	176.665 g	176.526 g		08/23/11
17	L11080332-52	SAMP	7	1.409 g	50 mL	177.478 g	177.273 g		08/23/11
18	L11080332-53	SAMP	7	1.349 g	50 mL	175.55 g	174.628 g		08/23/11
19	L11080332-54	SAMP	7	1.411 g	50 mL	177.58 g	177.278 g		08/23/11
20	L11080332-55	SAMP	7	1.443 g	50 mL	176.352 g	176.335 g		08/23/11
21	L11080332-56	SAMP	7	1.41 g	50 mL	176.822 g	176.62 g		08/23/11
22	WG373151-01	REF	7	1.415 g	50 mL	178.823 g	178.67 g		
23	L11080332-58	RS04	7	1.415 g	50 mL	178.823 g	178.67 g		08/23/11
24	WG373151-04	MS	7	1.415 g	50 mL	185.556 g	185.477 g	5 mL	
25	L11080332-59	MS04	7	1.415 g	50 mL	185.556 g	185.477 g	5 mL	08/23/11
26	WG373151-05	MSD	7	1.415 g	50 mL	185.023 g	184.931 g	5 mL	
27	L11080332-60	SD04	7	1.415 g	50 mL	185.023 g	184.931 g	5 mL	08/23/11

Analyst: Evan Potten

Reviewer: [Signature]



Microbac Laboratories Inc.
Microwave Digestion Log

Workgroup: WG372883
Analyst: ERP
Spike Analyst: ERP
Run Date: 08/11/2011 07:38
Method: 3051A
Balance: BAL013
Instrument: MW-3

SOP: ME406 Revision 12
Spike Solution: STD46535
Spike Witness: REK
10000 PPM P Lot #: COA14958
1000 PPM Zr Lot #: COA14957
HNO3 Lot #: COA15474
HCL Lot #: COA15554
Digestion Tubes Lot #: COA15549

	SAMPLE #	Type	Matrix	Initial Amount	Final Volume	Initial Vessel Wt	Final Vessel Wt	Spike Amount	Due Date
1	WG372883-02	BLANK	10	1 g	50 mL	175.245 g	175.228 g		
2	WG372883-03	LCS	10	1 g	50 mL	181.527 g	181.512 g	5 mL	
3	L11080002-17	ML17	7	1 g	50 mL	182.724 g	182.706 g	5 mL	08/31/11
4	L11080002-18	ML18	7	1 g	50 mL	180.891 g	180.883 g	5 mL	08/31/11
5	L11080002-19	ML19	7	1 g	50 mL	181.227 g	181.216 g	5 mL	08/31/11
6	L11080002-20	ML20	7	1 g	50 mL	181.91 g	181.895 g	5 mL	08/31/11
7	L11080324-01	SAMP	7	1.344 g	50 mL	177.663 g	177.568 g		08/19/11
8	L11080324-02	SAMP	7	1.359 g	50 mL	175.975 g	175.704 g		08/19/11
9	WG372883-01	REF	7	1.42 g	50 mL	176.895 g	176.463 g		
10	L11080332-03	RS01	7	1.42 g	50 mL	176.895 g	176.463 g		08/23/11
11	WG372883-04	MS	7	1.42 g	50 mL	183.046 g	182.836 g	5 mL	
12	L11080332-04	MS01	7	1.42 g	50 mL	183.046 g	182.836 g	5 mL	08/23/11
13	WG372883-05	MSD	7	1.42 g	50 mL	180.493 g	180.485 g	5 mL	
14	L11080332-05	SD01	7	1.42 g	50 mL	180.493 g	180.485 g	5 mL	08/23/11
15	L11080341-01	SAMP	10	1.039 g	50 mL	176.362 g	176.352 g		08/17/11
16	L11080341-02	SAMP	10	1.03 g	50 mL	173.803 g	173.728 g		08/17/11
17	L11080341-03	SAMP	10	1.002 g	50 mL	177.344 g	177.038 g		08/17/11
18	L11080341-04	SAMP	10	1.029 g	50 mL	176.333 g	176.098 g		08/17/11
19	L11080341-05	SAMP	10	1.034 g	50 mL	179.683 g	179.667 g		08/17/11
20	L11080341-06	SAMP	10	1.037 g	50 mL	175.557 g	175.5 g		08/17/11
21	L11080341-07	SAMP	10	1.01 g	50 mL	177.167 g	177.054 g		08/17/11
22	L11080341-08	SAMP	10	1.045 g	50 mL	175.167 g	174.873 g		08/17/11
23	L11080341-09	SAMP	10	1.008 g	50 mL	174.732 g	173.881 g		08/17/11
24	L11080341-10	SAMP	10	1.001 g	50 mL	177.551 g	177.546 g		08/17/11
25	L11080341-11	SAMP	10	1.004 g	50 mL	178.058 g	177.532 g		08/17/11
26	L11080341-12	SAMP	10	1.028 g	50 mL	176.933 g	176.907 g		08/17/11
27	L11080349-01	SAMP	10	.388 g	50 mL	176.558 g	176.196 g		08/12/11

L11080002-17	Erin p. and JI doc
L11080002-18	Erin p. and JI doc
L11080002-19	Erin p. and JI doc
L11080002-20	Erin p. and JI doc
L11080349-01	sample exhausted

Analyst: Erin Potten

Reviewer: Brenda Gregory

MW_DIG - Modified 09/30/2009
PDF ID: 2112246
Report generated: 08/11/2011 09:00



Microbac Laboratories Inc.
Microwave Digestion Log

Workgroup: WG373200
Analyst: BRG
Spike Analyst: BRG
Run Date: 08/15/2011 10:23
Method: 3051A
Balance: BAL014
Instrument: MW-1

SOP: ME406 Revison 12
Spike Solution: STD47047
Spike Witness: ERP
HNO3 Lot #: COA15474
HCL Lot #: COA15554
Digestion Tubes Lot #: COA15549
1000 PPM Zr Lot #: COA14957
10000 PPM P Lot #: COA14958

SAMPLE #	Type	Matrix	Initial Amount	Final Volume	Initial Vessel Wt	Final Vessel Wt	Spike Amount	Due Date
1	WG373200-02	BLANK	7	1 g	50 mL	176.438 g	176.435 g	
2	WG373200-03	LCS	7	1 g	50 mL	181.938 g	181.925 g	5 mL
3	L11080002-05	ML05	7	1 g	50 mL	184.349 g	184.35 g	5 mL 08/31/11
4	L11080002-06	ML06	7	1 g	50 mL	182.694 g	182.658 g	5 mL 08/31/11
5	L11080002-07	ML07	7	1 g	50 mL	181.825 g	181.826 g	5 mL 08/31/11
6	L11080002-08	ML08	7	1 g	50 mL	183.148 g	183.149 g	5 mL 08/31/11
7	L11080332-82	SAMP	7	1.393 g	50 mL	176.467 g	176.374 g	08/23/11
8	L11080332-83	SAMP	7	1.346 g	50 mL	176.039 g	176.033 g	08/23/11
9	L11080332-84	SAMP	7	1.312 g	50 mL	178.671 g	178.638 g	08/23/11
10	L11080332-85	SAMP	7	1.317 g	50 mL	176.506 g	176.385 g	08/23/11
11	L11080332-86	SAMP	7	1.334 g	50 mL	176.524 g	176.479 g	08/23/11
12	L11080332-87	SAMP	7	1.478 g	50 mL	176.069 g	175.943 g	08/23/11
13	L11080437-01	SAMP	7	1.434 g	50 mL	176.57 g	176.395 g	08/19/11
14	L11080437-02	SAMP	7	1.325 g	50 mL	177.226 g	177.122 g	08/19/11
15	L11080437-03	SAMP	7	1.442 g	50 mL	176.953 g	176.79 g	08/19/11
16	L11080437-04	SAMP	7	1.462 g	50 mL	175.783 g	175.772 g	08/19/11
17	L11080437-05	SAMP	7	1.449 g	50 mL	178.785 g	178.682 g	08/19/11
18	L11080437-06	SAMP	7	1.432 g	50 mL	176.4 g	176.357 g	08/19/11
19	L11080437-07	SAMP	7	1.406 g	50 mL	180.256 g	180.178 g	08/19/11
20	L11080437-08	SAMP	7	1.364 g	50 mL	175.664 g	175.398 g	08/19/11
21	L11080437-09	SAMP	7	1.307 g	50 mL	177.011 g	176.765 g	08/19/11
22	WG373200-01	REF	7	1.368 g	50 mL	178.964 g	178.746 g	
23	L11080437-12	RS01	7	1.368 g	50 mL	178.964 g	178.746 g	08/19/11
24	WG373200-04	MS	7	1.368 g	50 mL	184.718 g	184.678 g	5 mL
25	L11080437-13	MS01	7	1.368 g	50 mL	184.718 g	184.678 g	5 mL 08/19/11
26	WG373200-05	MSD	7	1.368 g	50 mL	183.802 g	183.798 g	5 mL
27	L11080437-14	SD01	7	1.368 g	50 mL	183.802 g	183.798 g	5 mL 08/19/11

L11080002-05	DOC'S: BRENDA/ERIN L.
L11080002-06	DOC'S: BRENDA/ERIN L.
L11080002-07	DOC'S: BRENDA/ERIN L.
L11080002-08	DOC'S: BRENDA/ERIN L.

Analyst: Brenda Gregory

Reviewer: Erin Patten



Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 081111T2.2
 Analyst1: JYH Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 38545

Calibration Std: STD46671 ICV Std: STD46598 Post Spike: STD45909
 ICSA: STD46821 ICSAB: STD47013 Int. Std: STD46580
 CCV: STD46918 LLCCV: _____

372936,372832,372953,372954

Workgroups:

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
1	T2.081111.121755	WG372983-01	Calibration Point		1		08/11/11 12:17
2	T2.081111.122117	WG372983-02	Calibration Point		1		08/11/11 12:21
3	T2.081111.122438	WG372983-03	Calibration Point		1		08/11/11 12:24
4	T2.081111.122758	WG372983-04	Calibration Point		1		08/11/11 12:27
5	T2.081111.123107	WG372983-05	Calibration Point		1		08/11/11 12:31
6	T2.081111.123419	WG372983-06	Initial Calibration Verification		1		08/11/11 12:34
7	T2.081111.123726	WG372983-07	Initial Calib Blank		1		08/11/11 12:37
8	T2.081111.124045	WG372983-08	Interference Check		1		08/11/11 12:40
9	T2.081111.124359	WG372983-09	Interference Check		1		08/11/11 12:43
10	T2.081111.124710	WG372983-10	CCV		1		08/11/11 12:47
11	T2.081111.125017	WG372983-11	CCB		1		08/11/11 12:50
12	T2.081111.125342	WG372883-02	Method/Prep Blank	1/50	1		08/11/11 12:53
13	T2.081111.125703	WG372883-03	Laboratory Control S	1/50	1		08/11/11 12:57
14	T2.081111.130013	L11080002-17	ERIN P/JI	1/50	1		08/11/11 13:00
15	T2.081111.130324	L11080002-18	ERIN P/JI	1/50	1		08/11/11 13:03
16	T2.081111.130633	L11080002-19	ERIN P/JI	1/50	1		08/11/11 13:06
17	T2.081111.130944	L11080002-20	ERIN P/JI	1/50	1		08/11/11 13:09
18	T2.081111.131301	WG372983-12	CCV		1		08/11/11 13:13
19	T2.081111.131607	WG372983-13	CCB		1		08/11/11 13:16
20	T2.081111.131937	L11080324-01	PR52S1524AA	1.344/50	1		08/11/11 13:19
21	T2.081111.132243	L11070324-02	11212-C0002-MS	1.359/50	1	WG370224-04	08/11/11 13:22
22	T2.081111.132554	WG372883-01	Reference Sample		1	L11080332-03	08/11/11 13:25
23	T2.081111.132908	WG372883-04	Matrix Spike	1.42/50	1	L11080332-03	08/11/11 13:29
24	T2.081111.133224	WG372883-05	Matrix Spike Duplica	1.42/50	1	L11080332-03	08/11/11 13:32
25	T2.081111.133556	WG372936-01	Post Digestion Spike		1	L11080332-03	08/11/11 13:35
26	T2.081111.133909	WG372936-01	Post Digestion Spike		5	L11080332-03	08/11/11 13:39
27	T2.081111.134216	WG372936-02	Serial Dilution		5	L11080332-03	08/11/11 13:42
28	T2.081111.134525	WG372936-02	Serial Dilution		25	L11080332-03	08/11/11 13:45
29	T2.081111.134839	WG372936-02	Serial Dilution		125	L11080332-03	08/11/11 13:48
30	T2.081111.135203	WG372983-14	CCV		1		08/11/11 13:52
31	T2.081111.135511	WG372983-15	CCB		1		08/11/11 13:55
32	T2.081111.135840	WG372883-01	Reference Sample		100	L11080332-03	08/11/11 13:58
33	T2.081111.140157	WG372883-04	Matrix Spike		100	L11080332-03	08/11/11 14:01
34	T2.081111.140513	WG372883-05	Matrix Spike Duplica		100	L11080332-03	08/11/11 14:05

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Shari L. Bahgat



Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 081111T2.2
 Analyst1: JYH Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 38545

Calibration Std: STD46671 ICV Std: STD46598 Post Spike: STD45909
 ICSA: STD46821 ICSAB: STD47013 Int. Std: STD46580
 CCV: STD46918 LLCCV: _____

372936,372832,372953,372954

Workgroups:

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
35	T2.081111.140830	WG372983-16	Interference Check		1		08/11/11 14:08
36	T2.081111.141142	WG372983-17	Interference Check		1		08/11/11 14:11
37	T2.081111.141456	L11080349-01	V9159	.388/50	1		08/11/11 14:14
38	T2.081111.141824	L11080341-01	SPE-X-PAINT 1	1.039/50	1		08/11/11 14:18
39	T2.081111.142207	L11080341-02	SPE-X-PAINT 2	1.03/50	1		08/11/11 14:22
40	T2.081111.142549	L11080341-03	SPE-X-PAINT 3	1.002/50	1		08/11/11 14:25
41	T2.081111.142937	WG372983-18	CCV		1		08/11/11 14:29
42	T2.081111.143244	WG372983-19	CCB		1		08/11/11 14:32
43	T2.081111.143611	L11080341-04	SPE-X-PAINT 4	1.029/50	1		08/11/11 14:36
44	T2.081111.143957	L11080341-05	SPE-X-PAINT 5	1.034/50	1		08/11/11 14:39
45	T2.081111.144348	L11080341-06	SPE-X-PAINT 6	1.037/50	1		08/11/11 14:43
46	T2.081111.144731	L11080341-07	SPE-X-PAINT 7	1.01/50	1		08/11/11 14:47
47	T2.081111.145114	L11080341-08	SPE-X-PAINT 8	1.045/50	1		08/11/11 14:51
48	T2.081111.145458	L11080341-09	SPE-X-PAINT 9	1.008/50	1		08/11/11 14:54
49	T2.081111.145822	L11080341-10	SPE-X-PAINT 10	1.001/50	1		08/11/11 14:58
50	T2.081111.150155	L11080341-11	SPE-X-PAINT 11	1.004/50	1		08/11/11 15:01
51	T2.081111.150528	L11080341-12	SPE-X-PAINT 12	1.028/50	1		08/11/11 15:05
52	T2.081111.150903	L11080217-14	6187-G0002	1.308/50	1		08/11/11 15:09
53	T2.081111.151219	WG372983-20	CCV		1		08/11/11 15:12
54	T2.081111.151526	WG372983-21	CCB		1		08/11/11 15:15
55	T2.081111.151850	WG372787-02	Method/Prep Blank	1/50	1		08/11/11 15:18
56	T2.081111.152211	WG372787-03	Laboratory Control S	1/50	1		08/11/11 15:22
57	T2.081111.152532	L11080302-15	10221-C0015	1.323/50	1		08/11/11 15:25
58	T2.081111.152846	WG372953-01	Post Digestion Spike		1	L11080302-15	08/11/11 15:28
59	T2.081111.153200	WG372953-02	Serial Dilution		5	L11080302-15	08/11/11 15:32
60	T2.081111.153511	WG372953-02	Serial Dilution		25	L11080302-15	08/11/11 15:35
61	T2.081111.153828	L11080302-16	10221-C0016	1.415/50	1		08/11/11 15:38
62	T2.081111.154142	L11080302-17	10221-C0017	1.355/50	1		08/11/11 15:41
63	T2.081111.154506	L11080302-18	10221-C0018	1.44/50	1		08/11/11 15:45
64	T2.081111.154820	WG372787-01	Reference Sample		1	L11080302-19	08/11/11 15:48
65	T2.081111.155145	WG372983-22	CCV		1		08/11/11 15:51
66	T2.081111.155455	WG372983-23	CCB		1		08/11/11 15:54
67	T2.081111.155823	WG372787-04	Matrix Spike	1.311/50	1	L11080302-19	08/11/11 15:58
68	T2.081111.160138	WG372787-05	Matrix Spike Duplica	1.311/50	1	L11080302-19	08/11/11 16:01

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Shari L. Bahgat



Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 081111T2.2
 Analyst1: JYH Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 38545

Calibration Std: STD46671 ICV Std: STD46598 Post Spike: STD45909
 ICSA: STD46821 ICSAB: STD47013 Int. Std: STD46580
 CCV: STD46918 LLCCV: _____

372936,372832,372953,372954

Workgroups:

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
69	T2.081111.160455	L11080302-22	10221-C0020	1.373/50	1		08/11/11 16:04
70	T2.081111.160809	L11080302-23	10221-C0021	1.495/50	1		08/11/11 16:08
71	T2.081111.161132	L11080302-24	10221-C0022	1.326/50	1		08/11/11 16:11
72	T2.081111.161446	L11080302-25	10221-C0023	1.402/50	1		08/11/11 16:14
73	T2.081111.161810	L11080302-26	10221-C0024	1.327/50	1		08/11/11 16:18
74	T2.081111.162143	L11080302-27	10221-C0025	1.426/50	1		08/11/11 16:21
75	T2.081111.162509	L11080302-28	10221-C0026	1.415/50	1		08/11/11 16:25
76	T2.081111.162833	L11080302-29	10221-C0027	1.354/50	1		08/11/11 16:28
77	T2.081111.163148	WG372983-24	CCV		1		08/11/11 16:31
78	T2.081111.163457	WG372983-25	CCB		1		08/11/11 16:34
79	T2.081111.163823	L11080302-30	10221-C0028	1.408/50	1		08/11/11 16:38
80	T2.081111.164138	L11080302-31	10221-C0029	1.345/50	1		08/11/11 16:41
81	T2.081111.164446	L11080302-32	10221-C0030	1.399/50	1		08/11/11 16:44
82	T2.081111.164801	L11080302-33	10221-C0031	1.335/50	1		08/11/11 16:48
83	T2.081111.165115	L11080302-34	10221-C0032	1.391/50	1		08/11/11 16:51
84	T2.081111.165429	L11080302-35	10221-C0033	1.346/50	1		08/11/11 16:54
85	T2.081111.165738	L11080302-36	10221-C0034	1.393/50	1		08/11/11 16:57
86	T2.081111.170058	L11080341-05	SPE-X-PAINT 5	1.034/50	100		08/11/11 17:00
87	T2.081111.170415	L11080341-11	SPE-X-PAINT 11	1.004/50	100		08/11/11 17:04
88	T2.081111.170736	WG372983-26	CCV		1		08/11/11 17:07
89	T2.081111.171046	WG372983-27	CCB		1		08/11/11 17:10
90	T2.081111.171407	WG372793-02	Method/Prep Blank	1/50	1		08/11/11 17:14
91	T2.081111.171728	WG372793-03	Laboratory Control S	1/50	1		08/11/11 17:17
92	T2.081111.172047	L11080302-37	10221-C0035	1.367/50	1		08/11/11 17:20
93	T2.081111.172400	WG372954-01	Post Digestion Spike		1	L11080302-37	08/11/11 17:24
94	T2.081111.172705	WG372954-02	Serial Dilution		5	L11080302-37	08/11/11 17:27
95	T2.081111.173017	WG372954-02	Serial Dilution		25	L11080302-37	08/11/11 17:30
96	T2.081111.173335	L11080302-38	10221-C0036	1.326/50	1		08/11/11 17:33
97	T2.081111.173649	L11080302-39	10221-C0037	1.455/50	1		08/11/11 17:36
98	T2.081111.174011	L11080302-40	10221-C0038	1.31/50	1		08/11/11 17:40
99	T2.081111.174334	L11080302-41	10221-C0039		1	WG372793-01	08/11/11 17:43
100	T2.081111.174642	WG372983-28	CCV		1		08/11/11 17:46
101	T2.081111.174952	WG372983-29	CCB		1		08/11/11 17:49
102	T2.081111.175316	L11080302-42	10221-C0039-MS	1.339/50	1	WG372793-04	08/11/11 17:53

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Shari L. Bahgat



Microbac Laboratories Inc.

Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 081111T2.2
 Analyst1: JYH Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 38545

Calibration Std: STD46671 ICV Std: STD46598 Post Spike: STD45909
 ICSA: STD46821 ICSAB: STD47013 Int. Std: STD46580
 CCV: STD46918 LLCCV: _____

372936,372832,372953,372954

Workgroups:

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
103	T2.081111.175624	L11080302-43	10221-C0039-MSD	1.339/50	1	WG372793-05	08/11/11 17:56
104	T2.081111.175931	L11080302-44	10221-C0040	1.353/50	1		08/11/11 17:59
105	T2.081111.180244	L11080302-45	10221-C0041	1.353/50	1		08/11/11 18:02
106	T2.081111.180558	L11080302-46	10221-C0042	1.311/50	1		08/11/11 18:05
107	T2.081111.180915	L11080302-47	10221-C0043	1.37/50	1		08/11/11 18:09
108	T2.081111.181231	L11080302-48	10221-C0044	1.379/50	1		08/11/11 18:12
109	T2.081111.181547	L11080303-04	10221-C0046	1.32/50	1		08/11/11 18:15
110	T2.081111.181901	L11080303-05	10221-C0047	1.38/50	1		08/11/11 18:19
111	T2.081111.182208	L11080303-06	10221-C0048	1.434/50	1		08/11/11 18:22
112	T2.081111.182530	WG372983-30	CCV		1		08/11/11 18:25
113	T2.081111.182840	WG372983-31	CCB		1		08/11/11 18:28
114	T2.081111.183206	L11080303-07	10221-C0049	1.347/50	1		08/11/11 18:32
115	T2.081111.183513	L11080303-08	10221-C0050	1.476/50	1		08/11/11 18:35
116	T2.081111.183825	L11080303-09	10221-C0051	1.302/50	1		08/11/11 18:38
117	T2.081111.184133	L11080303-10	10221-C0052	1.386/50	1		08/11/11 18:41
118	T2.081111.184450	L11080303-11	10221-C0053	1.349/50	1		08/11/11 18:44
119	T2.081111.184804	L11080303-12	10221-C0054	1.355/50	1		08/11/11 18:48
120	T2.081111.185120	L11080303-13	10221-C0055	1.397/50	1		08/11/11 18:51
121	T2.081111.185431	WG372983-32	CCV		1		08/11/11 18:54
122	T2.081111.185741	WG372983-33	CCB		1		08/11/11 18:57

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Shari L. Bahgat



Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 081511T2.2
 Analyst1: PDM Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 38582

Calibration Std: STD46671 ICV Std: STD46598 Post Spike: STD45109
 ICSA: STD46821 ICSAB: STD46820 Int. Std: STD46827
 CCV: STD46918 LLCCV: _____

373160,373161,373240,373241,373060,373061,373063,373057

Workgroups:

Comments: Sequences 268 through 285 were not reported due to CCV failure.

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
12	T2.081511.160922	WG373289-01	Calibration Point		1		08/15/11 16:09
13	T2.081511.161248	WG373289-02	Calibration Point		1		08/15/11 16:12
14	T2.081511.161611	WG373289-03	Calibration Point		1		08/15/11 16:16
15	T2.081511.161935	WG373289-04	Calibration Point		1		08/15/11 16:19
16	T2.081511.162249	WG373289-05	Calibration Point		1		08/15/11 16:22
17	T2.081511.162605	WG373289-06	Initial Calibration Verification		1		08/15/11 16:26
18	T2.081511.162918	WG373289-07	Initial Calib Blank		1		08/15/11 16:29
19	T2.081511.163241	WG373289-08	Interference Check		1		08/15/11 16:32
20	T2.081511.163559	WG373289-09	Interference Check		1		08/15/11 16:35
21	T2.081511.163917	WG373289-10	CCV		1		08/15/11 16:39
22	T2.081511.164231	WG373289-11	CCB		1		08/15/11 16:42
23	T2.081511.164559	WG372948-02	Method/Prep Blank	1/50	1		08/15/11 16:45
24	T2.081511.164923	WG372948-03	Laboratory Control S	1/50	1		08/15/11 16:49
25	T2.081511.165245	L11080311-13	9004-C0003	1.385/50	1		08/15/11 16:52
26	T2.081511.165558	L11080311-14	9004-C0004	1.353/50	1		08/15/11 16:55
27	T2.081511.165909	L11080311-15	9385-C0001	1.328/50	1		08/15/11 16:59
28	T2.081511.170228	WG373160-01	Post Digestion Spike		1	L11080311-15	08/15/11 17:02
29	T2.081511.170537	WG373160-02	Serial Dilution		5	L11080311-15	08/15/11 17:05
30	T2.081511.170852	WG373160-02	Serial Dilution		25	L11080311-15	08/15/11 17:08
31	T2.081511.171213	L11080311-16	9385-C0002	1.391/50	1		08/15/11 17:12
32	T2.081511.171524	L11080311-17	9385-C0003	1.319/50	1		08/15/11 17:15
33	T2.081511.171846	WG373289-12	CCV		1		08/15/11 17:18
34	T2.081511.172159	WG373289-13	CCB		1		08/15/11 17:21
35	T2.081511.172529	L11080311-18	9385-C0004	1.442/50	1		08/15/11 17:25
36	T2.081511.172848	L11080311-19	9385-C0005	1.405/50	1		08/15/11 17:28
37	T2.081511.173159	L11080311-20	9385-C0006	1.465/50	1		08/15/11 17:31
38	T2.081511.173512	WG372948-01	Reference Sample		1	L11080311-21	08/15/11 17:35
39	T2.081511.173823	WG372948-04	Matrix Spike	1.365/50	1	L11080311-21	08/15/11 17:38
40	T2.081511.174135	WG372948-05	Matrix Spike Duplica	1.365/50	1	L11080311-21	08/15/11 17:41
41	T2.081511.174446	L11080311-24	9385-C0008	1.316/50	1		08/15/11 17:44
42	T2.081511.174759	L11080311-25	9385-C0009	1.421/50	1		08/15/11 17:47
43	T2.081511.175110	L11080311-26	9385-C0010	1.312/50	1		08/15/11 17:51
44	T2.081511.175422	L11080311-27	9385-C0011	1.342/50	1		08/15/11 17:54
45	T2.081511.175738	WG373289-14	CCV		1		08/15/11 17:57

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 081511T2.2
 Analyst1: PDM Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 38582

Calibration Std: STD46671 ICV Std: STD46598 Post Spike: STD45109
 ICSA: STD46821 ICSAB: STD46820 Int. Std: STD46827
 CCV: STD46918 LLCCV: _____

373160,373161,373240,373241,373060,373061,373063,373057

Workgroups:

Comments: Sequences 268 through 285 were not reported due to CCV failure.

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
46	T2.081511.180052	WG373289-15	CCB		1		08/15/11 18:00
47	T2.081511.180421	L11080311-28	9385-C0012	1.325/50	1		08/15/11 18:04
48	T2.081511.180734	L11080311-29	9385-C0013	1.376/50	1		08/15/11 18:07
49	T2.081511.181046	L11080311-30	9385-C0014	1.363/50	1		08/15/11 18:10
50	T2.081511.181357	L11080311-31	9385-C0015	1.351/50	1		08/15/11 18:13
51	T2.081511.181710	L11080311-32	9385-C0016	1.312/50	1		08/15/11 18:17
52	T2.081511.182023	L11080311-33	9385-C0017	1.393/50	1		08/15/11 18:20
53	T2.081511.182334	L11080311-34	9385-C0018	1.323/50	1		08/15/11 18:23
54	T2.081511.182654	WG373289-16	CCV		1		08/15/11 18:26
55	T2.081511.183007	WG373289-17	CCB		1		08/15/11 18:30
56	T2.081511.183338	WG372951-02	Method/Prep Blank	1/50	1		08/15/11 18:33
57	T2.081511.183703	WG372951-03	Laboratory Control S	1/50	1		08/15/11 18:37
58	T2.081511.184026	L11080311-35	9385-C0019	1.362/50	1		08/15/11 18:40
59	T2.081511.184337	WG373161-01	Post Digestion Spike		1	L11080311-35	08/15/11 18:43
60	T2.081511.184646	WG373161-02	Serial Dilution		5	L11080311-35	08/15/11 18:46
61	T2.081511.185001	WG373161-02	Serial Dilution		25	L11080311-35	08/15/11 18:50
62	T2.081511.185322	L11080311-36	9385-C0020	1.366/50	1		08/15/11 18:53
63	T2.081511.185638	L11080311-37	9385-C0021	1.401/50	1		08/15/11 18:56
64	T2.081511.185950	L11080311-38	9385-C0022	1.394/50	1		08/15/11 18:59
65	T2.081511.190301	L11080311-39	9385-C0023	1.322/50	1		08/15/11 19:03
66	T2.081511.190619	WG373289-18	CCV		1		08/15/11 19:06
67	T2.081511.190932	WG373289-19	CCB		1		08/15/11 19:09
68	T2.081511.191303	L11080311-40	9385-C0024	1.449/50	1		08/15/11 19:13
69	T2.081511.191619	L11080311-41	9385-C0025	1.363/50	1		08/15/11 19:16
70	T2.081511.191931	L11080311-42	9385-C0026	1.328/50	1		08/15/11 19:19
71	T2.081511.192243	L11080311-43	9385-C0027	1.367/50	1		08/15/11 19:22
72	T2.081511.192555	L11080311-44	9385-C0028	1.456/50	1		08/15/11 19:25
73	T2.081511.192907	L11080311-45	9385-C0029	1.316/50	1		08/15/11 19:29
74	T2.081511.193219	L11080311-46	9385-C0030	1.474/50	1		08/15/11 19:32
75	T2.081511.193531	L11080311-47	9385-C0031	1.362/50	1		08/15/11 19:35
76	T2.081511.193844	L11080311-48	9385-C0032	1.33/50	1		08/15/11 19:38
77	T2.081511.194154	L11080312-01	9385-C0033	1.457/50	1		08/15/11 19:41
78	T2.081511.194511	WG373289-20	CCV		1		08/15/11 19:45
79	T2.081511.194824	WG373289-21	CCB		1		08/15/11 19:48

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 081511T2.2
 Analyst1: PDM Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 38582

Calibration Std: STD46671 ICV Std: STD46598 Post Spike: STD45109
 ICSA: STD46821 ICSAB: STD46820 Int. Std: STD46827
 CCV: STD46918 LLCCV: _____

373160,373161,373240,373241,373060,373061,373063,373057

Workgroups:

Comments: Sequences 268 through 285 were not reported due to CCV failure.

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
80	T2.081511.195155	L11080312-02	9385-C0034	1.354/50	1		08/15/11 19:51
81	T2.081511.195506	L11080312-03	9385-C0035	1.347/50	1		08/15/11 19:55
82	T2.081511.195817	L11080312-04	9385-C0036	1.35/50	1		08/15/11 19:58
83	T2.081511.200127	L11080312-05	9385-C0037	1.339/50	1		08/15/11 20:01
84	T2.081511.200443	WG372951-01	Reference Sample		1	L11080312-06	08/15/11 20:04
85	T2.081511.200755	WG372951-04	Matrix Spike	1.313/50	1	L11080312-06	08/15/11 20:07
86	T2.081511.201107	WG372951-05	Matrix Spike Duplica	1.313/50	1	L11080312-06	08/15/11 20:11
87	T2.081511.201429	WG373289-22	CCV		1		08/15/11 20:14
88	T2.081511.201742	WG373289-23	CCB		1		08/15/11 20:17
89	T2.081511.202110	WG373007-02	Method/Prep Blank	1/50	1		08/15/11 20:21
90	T2.081511.202434	WG373007-03	Laboratory Control S	1/50	1		08/15/11 20:24
91	T2.081511.202747	L11080300-08	AOCD-SB04(0-2)07272011	1.308/50	1		08/15/11 20:27
92	T2.081511.203104	WG373240-01	Post Digestion Spike		1	L11080300-08	08/15/11 20:31
93	T2.081511.203421	WG373240-02	Serial Dilution		5	L11080300-08	08/15/11 20:34
94	T2.081511.203742	WG373240-02	Serial Dilution		25	L11080300-08	08/15/11 20:37
95	T2.081511.204058	L11080300-09	AOCD-SB06(6-8)07292011	1.325/50	1		08/15/11 20:40
96	T2.081511.204418	L11080300-10	AOCD-SB08(4-6)08022011	1.42/50	1		08/15/11 20:44
97	T2.081511.204745	L11080300-11	AOCD-SB08A(0-2)08032011	1.393/50	1		08/15/11 20:47
98	T2.081511.205104	L11080312-07	9385-C0039	1.347/50	1		08/15/11 20:51
99	T2.081511.205425	WG373289-24	CCV		1		08/15/11 20:54
100	T2.081511.205738	WG373289-25	CCB		1		08/15/11 20:57
101	T2.081511.210108	L11080312-08	9385-C0040	1.426/50	1		08/15/11 21:01
102	T2.081511.210420	L11080312-09	9385-C0041	1.421/50	1		08/15/11 21:04
103	T2.081511.210740	L11080376-01	0922-602	1.344/50	1		08/15/11 21:07
104	T2.081511.211051	L11080376-02	0922-603	1.373/50	1		08/15/11 21:10
105	T2.081511.211403	L11080376-04	0922-616	1.391/50	1		08/15/11 21:14
106	T2.081511.211723	L11080376-05	0922-629-1	1.44/50	1		08/15/11 21:17
107	T2.081511.212042	L11080376-07	0922-629-2	1.441/50	1		08/15/11 21:20
108	T2.081511.212417	L11080376-09	0922-629-3	1.369/50	1		08/15/11 21:24
109	T2.081511.212729	L11080376-11	0922-682-1	1.319/50	1		08/15/11 21:27
110	T2.081511.213041	L11080376-12	0922-682-2	1.488/50	1		08/15/11 21:30
111	T2.081511.213359	WG373289-26	CCV		1		08/15/11 21:33
112	T2.081511.213712	WG373289-27	CCB		1		08/15/11 21:37
113	T2.081511.214042	L11080376-13	0922-692-1	1.382/50	1		08/15/11 21:40

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Microbac Laboratories Inc.

Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 081511T2.2
 Analyst1: PDM Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 38582

Calibration Std: STD46671 ICV Std: STD46598 Post Spike: STD45109
 ICSA: STD46821 IC SAB: STD46820 Int. Std: STD46827
 CCV: STD46918 LLCCV: _____

373160,373161,373240,373241,373060,373061,373063,373057

Workgroups:

Comments: Sequences 268 through 285 were not reported due to CCV failure.

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
114	T2.081511.214353	L11080376-15	0922-692-2	1.421/50	1		08/15/11 21:43
115	T2.081511.214713	L11080376-16	0922-693	1.426/50	1		08/15/11 21:47
116	T2.081511.215026	L11080376-17	0922-696-1	1.391/50	1		08/15/11 21:50
117	T2.081511.215339	WG373007-01	Reference Sample		1	L11080376-18	08/15/11 21:53
118	T2.081511.215651	WG373007-04	Matrix Spike	1.343/50	1	L11080376-18	08/15/11 21:56
119	T2.081511.215959	WG373007-05	Matrix Spike Duplica	1.343/50	1	L11080376-18	08/15/11 21:59
120	T2.081511.220311	WG373289-28	CCV		1		08/15/11 22:03
121	T2.081511.220623	WG373289-29	CCB		1		08/15/11 22:06
122	T2.081511.220947	WG373087-02	Method/Prep Blank	1/50	1		08/15/11 22:09
123	T2.081511.221311	WG373087-03	Laboratory Control S	1/50	1		08/15/11 22:13
124	T2.081511.221623	L11080332-14	DE-19A-07252011	1.391/50	1		08/15/11 22:16
125	T2.081511.221947	WG373241-01	Post Digestion Spike		1	L11080332-14	08/15/11 22:19
126	T2.081511.222311	WG373241-02	Serial Dilution		5	L11080332-14	08/15/11 22:23
127	T2.081511.222622	WG373241-02	Serial Dilution		25	L11080332-14	08/15/11 22:26
128	T2.081511.222938	L11080332-15	DE-19B-07252011	1.486/50	1		08/15/11 22:29
129	T2.081511.223254	L11080332-16	DE-19C-07252011	1.321/50	1		08/15/11 22:32
130	T2.081511.223610	L11080332-17	DE-19D-07252011	1.444/50	1		08/15/11 22:36
131	T2.081511.223925	L11080332-18	DE-19D-07252011-DUP	1.342/50	1		08/15/11 22:39
132	T2.081511.224241	WG373289-30	CCV		1		08/15/11 22:42
133	T2.081511.224555	WG373289-31	CCB		1		08/15/11 22:45
134	T2.081511.224923	L11080332-22	DE-19F-07252011	1.436/50	1		08/15/11 22:49
135	T2.081511.225250	L11080332-23	DE-19G-07252011	1.398/50	1		08/15/11 22:52
136	T2.081511.225606	L11080332-24	DE-20A-07252011	1.392/50	1		08/15/11 22:56
137	T2.081511.225925	L11080332-25	DE-20G-07252011	1.34/50	1		08/15/11 22:59
138	T2.081511.230243	L11080332-26	DE-26C-07272011	1.37/50	1		08/15/11 23:02
139	T2.081511.230608	L11080332-27	DE-26D-07272011	1.464/50	1		08/15/11 23:06
140	T2.081511.230928	L11080332-28	DE-26E-07272011	1.321/50	1		08/15/11 23:09
141	T2.081511.231258	L11080332-29	DE-26F-07272011	1.418/50	1		08/15/11 23:12
142	T2.081511.231623	WG373087-01	Reference Sample		1	L11080332-30	08/15/11 23:16
143	T2.081511.231940	WG373087-04	Matrix Spike	1.367/50	1	L11080332-30	08/15/11 23:19
144	T2.081511.232301	WG373289-32	CCV		1		08/15/11 23:23
145	T2.081511.232613	WG373289-33	CCB		1		08/15/11 23:26
146	T2.081511.232942	WG373087-05	Matrix Spike Duplica	1.367/50	1	L11080332-30	08/15/11 23:29
147	T2.081511.233258	L11080332-33	DE-25A-07262011	1.339/50	1		08/15/11 23:32

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 081511T2.2
 Analyst1: PDM Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 38582

Calibration Std: STD46671 ICV Std: STD46598 Post Spike: STD45109
 ICSA: STD46821 ICSAB: STD46820 Int. Std: STD46827
 CCV: STD46918 LLCCV: _____

373160,373161,373240,373241,373060,373061,373063,373057

Workgroups:

Comments: Sequences 268 through 285 were not reported due to CCV failure.

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
148	T2.081511.233605	L11080332-34	DE-25B-07262011	1.36/50	1		08/15/11 23:36
149	T2.081511.233914	L11080332-35	DE-25C-07262011	1.309/50	1		08/15/11 23:39
150	T2.081511.234222	L11080332-36	DE-25C-07262011-DUP	1.334/50	1		08/15/11 23:42
151	T2.081511.234531	L11080332-37	DE-25D-07262011	1.328/50	1		08/15/11 23:45
152	T2.081511.234840	L11080382-01	DECANT PILE	1.344/50	1		08/15/11 23:48
153	T2.081511.235153	WG373289-34	Interference Check		1		08/15/11 23:51
154	T2.081511.235509	WG373289-35	Interference Check		1		08/15/11 23:55
155	T2.081511.235827	WG373289-36	CCV		1		08/15/11 23:58
156	T2.081611.000140	WG373289-37	CCB		1		08/16/11 00:01
157	T2.081611.000506	WG372906-02	Method/Prep Blank	1/50	1		08/16/11 00:05
158	T2.081611.000831	WG372906-03	Laboratory Control S	1/50	1		08/16/11 00:08
159	T2.081611.001154	L11080307-11	10931-C0020	1.48/50	1		08/16/11 00:11
160	T2.081611.001506	WG373060-01	Post Digestion Spike		1	L11080307-11	08/16/11 00:15
161	T2.081611.001814	WG373060-02	Serial Dilution		5	L11080307-11	08/16/11 00:18
162	T2.081611.002129	WG373060-02	Serial Dilution		25	L11080307-11	08/16/11 00:21
163	T2.081611.002449	WG372906-01	Reference Sample		1	L11080307-12	08/16/11 00:24
164	T2.081611.002800	WG372906-04	Matrix Spike	1.404/50	1	L11080307-12	08/16/11 00:28
165	T2.081611.003110	WG372906-05	Matrix Spike Duplica	1.404/50	1	L11080307-12	08/16/11 00:31
166	T2.081611.003421	L11080307-15	10931-C0022	1.399/50	1		08/16/11 00:34
167	T2.081611.003743	WG373289-38	CCV		1		08/16/11 00:37
168	T2.081611.004056	WG373289-39	CCB		1		08/16/11 00:40
169	T2.081611.004426	L11080307-16	10931-C0023	1.329/50	1		08/16/11 00:44
170	T2.081611.004739	L11080307-17	10931-C0024	1.343/50	1		08/16/11 00:47
171	T2.081611.005051	L11080307-18	10931-C0025	1.36/50	1		08/16/11 00:50
172	T2.081611.005403	L11080307-19	10931-C0026	1.346/50	1		08/16/11 00:54
173	T2.081611.005715	L11080307-20	10931-C0027	1.421/50	1		08/16/11 00:57
174	T2.081611.010028	L11080307-21	10931-C0028	1.4/50	1		08/16/11 01:00
175	T2.081611.010339	L11080307-22	10931-C0029	1.458/50	1		08/16/11 01:03
176	T2.081611.010650	L11080307-23	10931-C0030	1.484/50	1		08/16/11 01:06
177	T2.081611.011001	L11080307-24	10931-C0031	1.44/50	1		08/16/11 01:10
178	T2.081611.011314	L11080307-25	10931-C0032	1.384/50	1		08/16/11 01:13
179	T2.081611.011635	WG373289-40	CCV		1		08/16/11 01:16
180	T2.081611.011948	WG373289-41	CCB		1		08/16/11 01:19
181	T2.081611.012316	L11080307-26	10931-C0033	1.41/50	1		08/16/11 01:23

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 081511T2.2
 Analyst1: PDM Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 38582

Calibration Std: STD46671 ICV Std: STD46598 Post Spike: STD45109
 ICSA: STD46821 ICSAB: STD46820 Int. Std: STD46827
 CCV: STD46918 LLCCV: _____

373160,373161,373240,373241,373060,373061,373063,373057

Workgroups:

Comments: Sequences 268 through 285 were not reported due to CCV failure.

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
182	T2.081611.012633	L11080307-27	10931-C0034	1.32/50	1		08/16/11 01:26
183	T2.081611.012946	L11080307-28	10931-C0035	1.41/50	1		08/16/11 01:29
184	T2.081611.013305	L11080307-29	10931-C0036	1.356/50	1		08/16/11 01:33
185	T2.081611.013623	L11080307-30	10931-C0037	1.482/50	1		08/16/11 01:36
186	T2.081611.013934	L11080307-31	10931-C0038	1.402/50	1		08/16/11 01:39
187	T2.081611.014246	L11080307-32	10931-C0039	1.429/50	1		08/16/11 01:42
188	T2.081611.014607	WG373289-42	CCV		1		08/16/11 01:46
189	T2.081611.014920	WG373289-43	CCB		1		08/16/11 01:49
190	T2.081611.015247	WG372921-02	Method/Prep Blank	1/50	1		08/16/11 01:52
191	T2.081611.015612	WG372921-03	Laboratory Control S	1/50	1		08/16/11 01:56
192	T2.081611.015935	L11080307-33	10931-C0040	1.396/50	1		08/16/11 01:59
193	T2.081611.020246	WG373061-01	Post Digestion Spike		1	L11080307-33	08/16/11 02:02
194	T2.081611.020554	WG373061-02	Serial Dilution		5	L11080307-33	08/16/11 02:05
195	T2.081611.020908	WG373061-02	Serial Dilution		25	L11080307-33	08/16/11 02:09
196	T2.081611.021229	L11080307-34	10931-C0041	1.408/50	1		08/16/11 02:12
197	T2.081611.021546	L11080307-35	10931-C0042	1.438/50	1		08/16/11 02:15
198	T2.081611.021903	L11080307-36	10931-C0043	1.426/50	1		08/16/11 02:19
199	T2.081611.022215	L11080307-37	10931-C0044	1.384/50	1		08/16/11 02:22
200	T2.081611.022531	WG373289-44	CCV		1		08/16/11 02:25
201	T2.081611.022845	WG373289-45	CCB		1		08/16/11 02:28
202	T2.081611.023211	L11080307-38	10931-C0045	1.377/50	1		08/16/11 02:32
203	T2.081611.023528	L11080307-39	10931-C0046	1.381/50	1		08/16/11 02:35
204	T2.081611.023839	L11080307-40	10931-C0047	1.316/50	1		08/16/11 02:38
205	T2.081611.024155	L11080307-41	10931-C0048	1.323/50	1		08/16/11 02:41
206	T2.081611.024505	L11080307-42	10931-C0049	1.418/50	1		08/16/11 02:45
207	T2.081611.024821	L11080307-43	10931-C0050	1.426/50	1		08/16/11 02:48
208	T2.081611.025133	L11080307-44	10931-C0051	1.322/50	1		08/16/11 02:51
209	T2.081611.025444	L11080307-45	10931-C0052	1.429/50	1		08/16/11 02:54
210	T2.081611.025754	L11080307-46	10931-C0053	1.485/50	1		08/16/11 02:57
211	T2.081611.030110	WG372921-01	Reference Sample		1	L11080307-47	08/16/11 03:01
212	T2.081611.030432	WG373289-46	CCV		1		08/16/11 03:04
213	T2.081611.030745	WG373289-47	CCB		1		08/16/11 03:07
214	T2.081611.031115	WG372921-04	Matrix Spike	1.387/50	1	L11080307-47	08/16/11 03:11
215	T2.081611.031426	WG372921-05	Matrix Spike Duplica	1.387/50	1	L11080307-47	08/16/11 03:14

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Shari L. Bahgat



Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 081511T2.2
 Analyst1: PDM Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 38582

Calibration Std: STD46671 ICV Std: STD46598 Post Spike: STD45109
 ICSA: STD46821 ICSAB: STD46820 Int. Std: STD46827
 CCV: STD46918 LLCCV: _____

373160,373161,373240,373241,373060,373061,373063,373057

Workgroups:

Comments: Sequences 268 through 285 were not reported due to CCV failure.

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
216	T2.081611.031736	L11080308-02	10937-C0002	1.417/50	1		08/16/11 03:17
217	T2.081611.032048	L11080308-03	10937-C0003	1.439/50	1		08/16/11 03:20
218	T2.081611.032416	L11080308-04	10937-C0004	1.43/50	1		08/16/11 03:24
219	T2.081611.032746	L11080308-05	10937-C0005	1.389/50	1		08/16/11 03:27
220	T2.081611.033058	L11080308-06	10937-C0006	1.338/50	1		08/16/11 03:30
221	T2.081611.033418	WG373289-48	CCV		1		08/16/11 03:34
222	T2.081611.033730	WG373289-49	CCB		1		08/16/11 03:37
223	T2.081611.034059	WG372928-02	Method/Prep Blank	1/50	1		08/16/11 03:40
224	T2.081611.034423	WG372928-03	Laboratory Control S	1/50	1		08/16/11 03:44
225	T2.081611.034746	L11080308-07	10937-C0007	1.325/50	1		08/16/11 03:47
226	T2.081611.035058	WG373063-01	Post Digestion Spike		1	L11080308-07	08/16/11 03:50
227	T2.081611.035407	WG373063-02	Serial Dilution		5	L11080308-11	08/16/11 03:54
228	T2.081611.035722	WG373063-02	Serial Dilution		25	L11080308-11	08/16/11 03:57
229	T2.081611.040043	L11080308-08	10937-C0008	1.456/50	1		08/16/11 04:00
230	T2.081611.040354	L11080308-09	10937-C0009	1.434/50	1		08/16/11 04:03
231	T2.081611.040707	L11080308-10	10937-C0010	1.448/50	1		08/16/11 04:07
232	T2.081611.041019	L11080308-11	10937-C0011	1.445/50	1		08/16/11 04:10
233	T2.081611.041349	WG373289-50	CCV		1		08/16/11 04:13
234	T2.081611.041702	WG373289-51	CCB		1		08/16/11 04:17
235	T2.081611.042030	L11080308-12	10937-C0012	1.429/50	1		08/16/11 04:20
236	T2.081611.042352	L11080308-13	10937-C0013	1.447/50	1		08/16/11 04:23
237	T2.081611.042703	L11080308-14	10937-C0014	1.339/50	1		08/16/11 04:27
238	T2.081611.043015	L11080308-15	10937-C0015	1.4/50	1		08/16/11 04:30
239	T2.081611.043327	L11080308-16	10937-C0016	1.446/50	1		08/16/11 04:33
240	T2.081611.043640	L11080308-17	10937-C0017	1.482/50	1		08/16/11 04:36
241	T2.081611.043952	L11080308-18	10937-C0018	1.34/50	1		08/16/11 04:39
242	T2.081611.044305	L11080308-19	10937-C0019	1.304/50	1		08/16/11 04:43
243	T2.081611.044617	L11080308-20	10937-C0020	1.432/50	1		08/16/11 04:46
244	T2.081611.044930	L11080308-21	10937-C0021	1.356/50	1		08/16/11 04:49
245	T2.081611.045245	WG373289-52	CCV		1		08/16/11 04:52
246	T2.081611.045558	WG373289-53	CCB		1		08/16/11 04:55
247	T2.081611.045926	L11080308-22	10937-C0022	1.307/50	1		08/16/11 04:59
248	T2.081611.050238	L11080308-23	10937-C0023	1.306/50	1		08/16/11 05:02
249	T2.081611.050551	L11080308-24	10937-C0024	1.36/50	1		08/16/11 05:05

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Shari L. Bahgat



Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 081511T2.2
 Analyst1: PDM Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 38582

Calibration Std: STD46671 ICV Std: STD46598 Post Spike: STD45109
 ICSA: STD46821 ICSAB: STD46820 Int. Std: STD46827
 CCV: STD46918 LLCCV: _____

373160,373161,373240,373241,373060,373061,373063,373057

Workgroups:

Comments: Sequences 268 through 285 were not reported due to CCV failure.

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
250	T2.081611.050904	L11080308-25	10937-C0025	1.434/50	1		08/16/11 05:09
251	T2.081611.051214	WG372928-01	Reference Sample		1	L11080308-26	08/16/11 05:12
252	T2.081611.051526	WG372928-04	Matrix Spike	1.416/50	1	L11080308-26	08/16/11 05:15
253	T2.081611.051837	WG372928-05	Matrix Spike Duplica	1.416/50	1	L11080308-26	08/16/11 05:18
254	T2.081611.052152	WG373289-54	CCV		1		08/16/11 05:21
255	T2.081611.052505	WG373289-55	CCB		1		08/16/11 05:25
256	T2.081611.052831	L11080306-42	10931-C0003	1.435/50	1		08/16/11 05:28
257	T2.081611.053142	L11080306-43	10931-C0004	1.331/50	1		08/16/11 05:31
258	T2.081611.053453	L11080306-44	10931-C0005	1.395/50	1		08/16/11 05:34
259	T2.081611.053805	L11080306-45	10931-C0006	1.446/50	1		08/16/11 05:38
260	T2.081611.054117	L11080306-46	10931-C0007	1.446/50	1		08/16/11 05:41
261	T2.081611.054428	L11080306-47	10931-C0008	1.492/50	1		08/16/11 05:44
262	T2.081611.054746	L11080306-48	10931-C0009	1.447/50	1		08/16/11 05:47
263	T2.081611.055118	L11080307-01	10931-C0010	1.337/50	1		08/16/11 05:51
264	T2.081611.055454	L11080307-02	10931-C0011	1.305/50	1		08/16/11 05:54
265	T2.081611.055822	L11080307-03	10931-C0012	1.423/50	1		08/16/11 05:58
266	T2.081611.060159	WG373289-56	CCV		1		08/16/11 06:01
267	T2.081611.060512	WG373289-57	CCB		1		08/16/11 06:05
268	T2.081611.060838	L11080307-04	10931-C0013		1		08/16/11 06:08
269	T2.081611.061149	L11080307-05	10931-C0014		1		08/16/11 06:11
270	T2.081611.061500	L11080307-06	10931-C0015		1		08/16/11 06:15
271	T2.081611.061816	L11080307-07	10931-C0016		1		08/16/11 06:18
272	T2.081611.062126	L11080307-08	10931-C0017		1		08/16/11 06:21
273	T2.081611.062437	L11080307-09	10931-C0018		1		08/16/11 06:24
274	T2.081611.062756	L11080307-10	10931-C0019		1		08/16/11 06:27
275	T2.081611.063109	WG373289-58	CCV		1		08/16/11 06:31
276	T2.081611.063421	WG373289-59	CCB		1		08/16/11 06:34
277	T2.081611.063749	WG373289-60	Linear Range Check		1		08/16/11 06:37
278	T2.081611.064103	WG373289-60	Linear Range Check		1		08/16/11 06:41
279	T2.081611.064433	WG373289-60	Linear Range Check		1		08/16/11 06:44
280	T2.081611.064755	WG373289-60	Linear Range Check		1		08/16/11 06:47
281	T2.081611.065119	WG373289-60	Linear Range Check		1		08/16/11 06:51
282	T2.081611.065451	WG373289-60	Linear Range Check		1		08/16/11 06:54
283	T2.081611.065822	WG373289-60	Linear Range Check		1		08/16/11 06:58

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Shari L. Bahgat



Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 081511T2.2
 Analyst1: PDM Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 38582

Calibration Std: STD46671 ICV Std: STD46598 Post Spike: STD45109
 ICSA: STD46821 ICSAB: STD46820 Int. Std: STD46827
 CCV: STD46918 LLCCV: _____

373160,373161,373240,373241,373060,373061,373063,373057

Workgroups:

Comments: Sequences 268 through 285 were not reported due to CCV failure.

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
284	T2.081611.070150	WG373289-60	Linear Range Check		1		08/16/11 07:01
285	T2.081611.070516	WG373289-60	Linear Range Check		1		08/16/11 07:05
286	T2.081611.070854	WG373289-61	CCV		1		08/16/11 07:08
287	T2.081611.071207	WG373289-62	CCB		1		08/16/11 07:12
288	T2.081611.081801	WG373289-63	CCV		1		08/16/11 08:18
289	T2.081611.082114	WG373289-64	CCB		1		08/16/11 08:21
290	T2.081611.082441	L11080307-04	10931-C0013	1.482/50	1		08/16/11 08:24
291	T2.081611.082753	L11080307-05	10931-C0014	1.331/50	1		08/16/11 08:27
292	T2.081611.083104	L11080307-06	10931-C0015	1.307/50	1		08/16/11 08:31
293	T2.081611.083425	L11080307-07	10931-C0016	1.466/50	1		08/16/11 08:34
294	T2.081611.083735	L11080307-08	10931-C0017	1.345/50	1		08/16/11 08:37
295	T2.081611.084046	L11080307-09	10931-C0018	1.46/50	1		08/16/11 08:40
296	T2.081611.084403	L11080307-10	10931-C0019	1.41/50	1		08/16/11 08:44
297	T2.081611.084716	WG373289-65	CCV		1		08/16/11 08:47
298	T2.081611.085028	WG373289-66	CCB		1		08/16/11 08:50
299	T2.081611.085357	WG373289-60	Linear Range Check		1		08/16/11 08:53
300	T2.081611.085710	WG373289-60	Linear Range Check		1		08/16/11 08:57
301	T2.081611.090041	WG373289-60	Linear Range Check		1		08/16/11 09:00
302	T2.081611.090410	WG373289-60	Linear Range Check		1		08/16/11 09:04
303	T2.081611.090736	WG373289-60	Linear Range Check		1		08/16/11 09:07
304	T2.081611.091106	WG373289-60	Linear Range Check		1		08/16/11 09:11
305	T2.081611.091432	WG373289-67	CCV		1		08/16/11 09:14
306	T2.081611.091744	WG373289-68	CCB		1		08/16/11 09:17

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Shari L. Bahgat



Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 081811T2.2
 Analyst1: PDM Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 38620

Calibration Std: STD46671 ICV Std: STD46598 Post Spike: STD45109
 ICSA: STD46821 ICSAB: STD46820 Int. Std: STD46827
 CCV: STD46918 LLCCV: _____

373576,373582,373583,3673500,373584,373585,

Workgroups:

Comments: Sequences 138 through 168 and 183 through 318 were not reported due to CCV failures.

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
1	T2.081811.103829	WG373676-01	Calibration Point		1		08/18/11 10:38
2	T2.081811.104154	WG373676-02	Calibration Point		1		08/18/11 10:41
3	T2.081811.104518	WG373676-03	Calibration Point		1		08/18/11 10:45
4	T2.081811.104843	WG373676-04	Calibration Point		1		08/18/11 10:48
5	T2.081811.105157	WG373676-05	Calibration Point		1		08/18/11 10:51
6	T2.081811.105515	WG373676-06	Initial Calibration Verification		1		08/18/11 10:55
7	T2.081811.105828	WG373676-07	Initial Calib Blank		1		08/18/11 10:58
8	T2.081811.110153	WG373676-08	Interference Check		1		08/18/11 11:01
9	T2.081811.110510	WG373676-09	Interference Check		1		08/18/11 11:05
10	T2.081811.110830	WG373676-10	CCV		1		08/18/11 11:08
11	T2.081811.111144	WG373676-11	CCB		1		08/18/11 11:11
12	T2.081811.111513	WG373537-02	Method/Prep Blank	1/50	1		08/18/11 11:15
13	T2.081811.111837	WG373537-03	Laboratory Control S	1/50	1		08/18/11 11:18
14	T2.081811.112200	L11080553-01	11963-C0025	1.019/50	5		08/18/11 11:22
15	T2.081811.112515	WG373576-01	Post Digestion Spike		5	L11080553-01	08/18/11 11:25
16	T2.081811.112826	WG373576-02	Serial Dilution		25	L11080553-01	08/18/11 11:28
17	T2.081811.113144	WG373576-02	Serial Dilution		125	L11080553-01	08/18/11 11:31
18	T2.081811.113506	L11080559-16	10840-C0021	1.378/50	1		08/18/11 11:35
19	T2.081811.113818	L11080559-17	10840-C0022	1.482/50	1		08/18/11 11:38
20	T2.081811.114131	L11080559-18	10840-C0023	1.473/50	1		08/18/11 11:41
21	T2.081811.114450	L11080559-19	10840-C0024	1.483/50	1		08/18/11 11:44
22	T2.081811.114816	WG373676-12	CCV		1		08/18/11 11:48
23	T2.081811.115130	WG373676-13	CCB		1		08/18/11 11:51
24	T2.081811.115500	L11080559-20	10840-C0025	1.341/50	1		08/18/11 11:55
25	T2.081811.115812	L11080559-21	10840-C0026	1.415/50	1		08/18/11 11:58
26	T2.081811.120124	L11080559-22	10840-C0027	1.375/50	1		08/18/11 12:01
27	T2.081811.120444	L11080559-23	10840-C0028	1.354/50	1		08/18/11 12:04
28	T2.081811.120757	L11080559-24	10840-C0029	1.336/50	1		08/18/11 12:07
29	T2.081811.121115	L11080559-25	10840-C0030	1.413/50	1		08/18/11 12:11
30	T2.081811.121437	L11080559-26	10840-C0031	1.361/50	1		08/18/11 12:14
31	T2.081811.121755	L11080559-27	10840-C0032	1.387/50	1		08/18/11 12:17
32	T2.081811.122113	L11080559-28	10840-C0033	1.383/50	1		08/18/11 12:21
33	T2.081811.122426	WG373537-01	Reference Sample		1	L11080559-29	08/18/11 12:24
34	T2.081811.122751	WG373676-14	CCV		1		08/18/11 12:27

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Maren Beery



Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 081811T2.2
 Analyst1: PDM Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 38620

Calibration Std: STD46671 ICV Std: STD46598 Post Spike: STD45109
 ICSA: STD46821 ICSAB: STD46820 Int. Std: STD46827
 CCV: STD46918 LLCCV: _____

373576,373582,373583,3673500,373584,373585,

Workgroups:

Comments: Sequences 138 through 168 and 183 through 318 were not reported due to CCV failures.

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
35	T2.081811.123105	WG373676-15	CCB		1		08/18/11 12:31
36	T2.081811.123434	WG373537-04	Matrix Spike	1.459/50	1	L11080559-29	08/18/11 12:34
37	T2.081811.123747	WG373537-05	Matrix Spike Duplica	1.459/50	1	L11080559-29	08/18/11 12:37
38	T2.081811.124059	L11080559-32	10840-C0035	1.304/50	1		08/18/11 12:40
39	T2.081811.124412	L11080559-33	10840-C0036	1.368/50	1		08/18/11 12:44
40	T2.081811.124732	L11080559-34	10840-C0037	1.398/50	1		08/18/11 12:47
41	T2.081811.125045	L11080559-35	10840-C0038	1.419/50	1		08/18/11 12:50
42	T2.081811.125404	L11080559-36	10840-C0039	1.488/50	1		08/18/11 12:54
43	T2.081811.125731	WG373676-16	CCV		1		08/18/11 12:57
44	T2.081811.130045	WG373676-17	CCB		1		08/18/11 13:00
45	T2.081811.130418	WG373429-02	Method/Prep Blank	1/50	1		08/18/11 13:04
46	T2.081811.130743	WG373429-03	Laboratory Control S	1/50	1		08/18/11 13:07
47	T2.081811.131055	L11080488-01	75304-C0014	1.012/50	1		08/18/11 13:10
48	T2.081811.131415	WG373582-01	Post Digestion Spike		1	L11080488-01	08/18/11 13:14
49	T2.081811.131732	L11080488-01	75304-C0014		5		08/18/11 13:17
50	T2.081811.132055	WG373582-02	Serial Dilution		25	L11080488-01	08/18/11 13:20
51	T2.081811.132415	L11080488-02	75304-C0015	1.009/50	1		08/18/11 13:24
52	T2.081811.132727	L11080488-03	75304-C0016	1.017/50	1		08/18/11 13:27
53	T2.081811.133046	L11080488-04	75304-C0017	1.024/50	1		08/18/11 13:30
54	T2.081811.133405	L11080488-05	75304-C0018	1.022/50	1		08/18/11 13:34
55	T2.081811.133732	WG373676-18	CCV		1		08/18/11 13:37
56	T2.081811.134045	WG373676-19	CCB		1		08/18/11 13:40
57	T2.081811.134418	L11080488-06	75304-C0019	1.014/50	1		08/18/11 13:44
58	T2.081811.134729	L11080488-07	75304-C0020	1.021/50	1		08/18/11 13:47
59	T2.081811.135041	L11080488-08	75304-C0021	1.021/50	1		08/18/11 13:50
60	T2.081811.135357	L11080488-09	75304-C0023	1.013/50	1		08/18/11 13:53
61	T2.081811.135722	L11080501-16	5386-C0909	1.484/50	1		08/18/11 13:57
62	T2.081811.140035	WG373429-01	Reference Sample		1	L11080501-17	08/18/11 14:00
63	T2.081811.140344	WG373429-04	Matrix Spike	1.37/50	1	L11080501-17	08/18/11 14:03
64	T2.081811.140652	WG373429-05	Matrix Spike Duplica	1.37/50	1	L11080501-17	08/18/11 14:06
65	T2.081811.141018	L11080514-01	AFTER CLEANUP	1.019/50	1		08/18/11 14:10
66	T2.081811.141350	L11080514-03	BEFORE CLEANUP(RLOBO	1.011/50	1		08/18/11 14:13
67	T2.081811.141708	WG373676-20	CCV		1		08/18/11 14:17
68	T2.081811.142021	WG373676-21	CCB		1		08/18/11 14:20

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 081811T2.2
 Analyst1: PDM Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 38620

Calibration Std: STD46671 ICV Std: STD46598 Post Spike: STD45109
 ICSA: STD46821 ICSAB: STD46820 Int. Std: STD46827
 CCV: STD46918 LLCCV: _____

373576,373582.373583,3673500,373584,373585,

Workgroups:

Comments: Sequences 138 through 168 and 183 through 318 were not reported due to CCV failures.

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
69	T2.081811.142352	L11080532-02	081211BA	1.024/50	1		08/18/11 14:23
70	T2.081811.142703	L11080532-04	081211FA	1.021/50	1		08/18/11 14:27
71	T2.081811.143044	L11080532-06	081211BB		1		08/18/11 14:30
72	T2.081811.143410	WG373676-22	CCV		1		08/18/11 14:34
73	T2.081811.143725	WG373676-23	CCB		1		08/18/11 14:37
74	T2.081811.144054	WG373200-02	Method/Prep Blank	1/50	1		08/18/11 14:40
75	T2.081811.144418	WG373200-03	Laboratory Control S	1/50	1		08/18/11 14:44
76	T2.081811.144731	L11080332-82	DE-16G-07262011	1.393/50	1		08/18/11 14:47
77	T2.081811.145053	WG373583-01	Post Digestion Spike		1	L11080332-82	08/18/11 14:50
78	T2.081811.145411	WG373583-02	Serial Dilution		5	L11080332-82	08/18/11 14:54
79	T2.081811.145725	WG373583-02	Serial Dilution		25	L11080332-82	08/18/11 14:57
80	T2.081811.150044	L11080332-83	DE-17A-07262011	1.346/50	1		08/18/11 15:00
81	T2.081811.150356	L11080332-84	DE-17B-07262011	1.312/50	1		08/18/11 15:03
82	T2.081811.150705	L11080332-85	DE-17C-07262011	1.317/50	1		08/18/11 15:07
83	T2.081811.151020	L11080332-86	DE-17C-07262011-DUP	1.334/50	1		08/18/11 15:10
84	T2.081811.151344	WG373676-24	CCV		1		08/18/11 15:13
85	T2.081811.151658	WG373676-25	CCB		1		08/18/11 15:16
86	T2.081811.152030	L11080332-87	DE-17D-07262011	1.478/50	1		08/18/11 15:20
87	T2.081811.152350	L11080437-01	5386-C0547	1.434/50	1		08/18/11 15:23
88	T2.081811.152700	L11080437-02	5386-C0548	1.325/50	1		08/18/11 15:27
89	T2.081811.153013	L11080437-03	5386-C0549	1.442/50	1		08/18/11 15:30
90	T2.081811.153326	L11080437-04	5386-C0550	1.462/50	1		08/18/11 15:33
91	T2.081811.160235	WG373676-26	CCV		1		08/18/11 16:02
92	T2.081811.160549	WG373676-27	CCB		1		08/18/11 16:05
93	T2.081811.160918	L11080437-05	5386-C0551	1.449/50	1		08/18/11 16:09
94	T2.081811.161233	L11080437-06	5386-C0587	1.432/50	1		08/18/11 16:12
95	T2.081811.161558	L11080437-07	5386-C0588	1.406/50	1		08/18/11 16:15
96	T2.081811.161910	L11080437-08	5386-C0589	1.364/50	1		08/18/11 16:19
97	T2.081811.162223	L11080437-09	5386-C0590	1.307/50	1		08/18/11 16:22
98	T2.081811.162536	WG373200-01	Reference Sample		1	L11080437-12	08/18/11 16:25
99	T2.081811.162849	WG373200-04	Matrix Spike	1.368/50	1	L11080437-12	08/18/11 16:28
100	T2.081811.163158	WG373200-05	Matrix Spike Duplica	1.368/50	1	L11080437-12	08/18/11 16:31
101	T2.081811.163507	WG373676-28	Interference Check		1		08/18/11 16:35
102	T2.081811.163824	WG373676-29	Interference Check		1		08/18/11 16:38

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 081811T2.2
 Analyst1: PDM Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 38620

Calibration Std: STD46671 ICV Std: STD46598 Post Spike: STD45109
 ICSA: STD46821 ICSAB: STD46820 Int. Std: STD46827
 CCV: STD46918 LLCCV: _____

373576,373582,373583,3673500,373584,373585,

Workgroups:

Comments: Sequences 138 through 168 and 183 through 318 were not reported due to CCV failures.

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
103	T2.081811.164141	WG373676-30	CCV		1		08/18/11 16:41
104	T2.081811.164456	WG373676-31	CCB		1		08/18/11 16:44
105	T2.081811.164823	WG373266-02	Method/Prep Blank	1/50	1		08/18/11 16:48
106	T2.081811.165148	WG373266-03	Laboratory Control S	1/50	1		08/18/11 16:51
107	T2.081811.165511	L11080449-40	10919-C0055	1.363/50	1		08/18/11 16:55
108	T2.081811.165825	WG373500-01	Post Digestion Spike		1	L11080449-40	08/18/11 16:58
109	T2.081811.170136	WG373500-02	Serial Dilution		5	L11080449-40	08/18/11 17:01
110	T2.081811.170455	WG373500-02	Serial Dilution		25	L11080449-40	08/18/11 17:04
111	T2.081811.170817	WG373266-01	Reference Sample		1	L11080449-41	08/18/11 17:08
112	T2.081811.171130	WG373266-04	Matrix Spike	1.418/50	1	L11080449-41	08/18/11 17:11
113	T2.081811.171444	WG373266-05	Matrix Spike Duplica	1.418/50	1	L11080449-41	08/18/11 17:14
114	T2.081811.171757	L11080449-44	10936-C0002	1.414/50	1		08/18/11 17:17
115	T2.081811.172117	WG373676-32	CCV		1		08/18/11 17:21
116	T2.081811.172432	WG373676-33	CCB		1		08/18/11 17:24
117	T2.081811.172801	L11080449-45	10936-C0003	1.386/50	1		08/18/11 17:28
118	T2.081811.173114	L11080449-46	10936-C0004	1.316/50	1		08/18/11 17:31
119	T2.081811.173428	L11080449-47	10936-C0005	1.449/50	1		08/18/11 17:34
120	T2.081811.173742	L11080449-48	10936-C0006	1.33/50	1		08/18/11 17:37
121	T2.081811.174056	L11080450-01	10936-C0007	1.402/50	1		08/18/11 17:40
122	T2.081811.174410	L11080450-02	10936-C0008	1.343/50	1		08/18/11 17:44
123	T2.081811.174723	L11080450-03	10936-C0009	1.341/50	1		08/18/11 17:47
124	T2.081811.175037	L11080450-04	10936-C0010	1.404/50	1		08/18/11 17:50
125	T2.081811.175351	L11080450-05	10936-C0011	1.316/50	1		08/18/11 17:53
126	T2.081811.175705	L11080450-06	10936-C0012	1.329/50	1		08/18/11 17:57
127	T2.081811.180025	WG373676-34	CCV		1		08/18/11 18:00
128	T2.081811.180339	WG373676-35	CCB		1		08/18/11 18:03
129	T2.081811.180708	L11080450-07	10936-C0013		1		08/18/11 18:07
130	T2.081811.181022	L11080450-08	10936-C0014		1		08/18/11 18:10
131	T2.081811.181336	L11080450-09	10936-C0015		1		08/18/11 18:13
132	T2.081811.181650	L11080450-10	10936-C0016		1		08/18/11 18:16
133	T2.081811.182004	L11080450-11	10936-C0017		1		08/18/11 18:20
134	T2.081811.182333	L11080450-12	10936-C0018		1		08/18/11 18:23
135	T2.081811.182647	L11080450-13	10936-C0019		1		08/18/11 18:26
136	T2.081811.183005	WG373676-36	CCV		1		08/18/11 18:30

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 081811T2.2
 Analyst1: PDM Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 38620

Calibration Std: STD46671 ICV Std: STD46598 Post Spike: STD45109
 ICSA: STD46821 ICSAB: STD46820 Int. Std: STD46827
 CCV: STD46918 LLCCV: _____

373576,373582,373583,3673500,373584,373585,

Workgroups:

Comments: Sequences 138 through 168 and 183 through 318 were not reported due to CCV failures.

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
137	T2.081811.183318	WG373676-37	CCB		1		08/18/11 18:33
138	T2.081811.183646	WG373273-02	Method/Prep Blank		1		08/18/11 18:36
139	T2.081811.184010	WG373273-03	Laboratory Control S		1		08/18/11 18:40
140	T2.081811.184333	L11080450-31	10944-C0014		1		08/18/11 18:43
141	T2.081811.184654	WG373584-01	Post Digestion Spike		1	L11080450-31	08/18/11 18:46
142	T2.081811.185010	WG373584-02	Serial Dilution		5	L11080450-31	08/18/11 18:50
143	T2.081811.185325	WG373584-02	Serial Dilution		25	L11080450-31	08/18/11 18:53
144	T2.081811.185646	L11080450-32	10944-C0015		1		08/18/11 18:56
145	T2.081811.185958	L11080450-33	10944-C0016		1		08/18/11 18:59
146	T2.081811.190319	L11080450-34	10944-C0017		1		08/18/11 19:03
147	T2.081811.190649	L11080450-35	10944-C0018		1		08/18/11 19:06
148	T2.081811.191026	WG373676-38	CCV		1		08/18/11 19:10
149	T2.081811.191340	WG373676-39	CCB		1		08/18/11 19:13
150	T2.081811.191710	L11080450-36	10944-C0019		1		08/18/11 19:17
151	T2.081811.192023	L11080450-37	10944-C0020		1		08/18/11 19:20
152	T2.081811.192336	L11080450-38	10944-C0021		1		08/18/11 19:23
153	T2.081811.192655	L11080450-39	10944-C0022		1		08/18/11 19:26
154	T2.081811.193009	L11080450-40	10944-C0023		1		08/18/11 19:30
155	T2.081811.193322	L11080450-41	10944-C0024		1		08/18/11 19:33
156	T2.081811.193636	L11080450-42	10944-C0025		1		08/18/11 19:36
157	T2.081811.193949	L11080450-43	10944-C0026		1		08/18/11 19:39
158	T2.081811.194301	WG373273-01	Reference Sample		1	L11080450-44	08/18/11 19:43
159	T2.081811.194619	WG373273-04	Matrix Spike		1	L11080450-44	08/18/11 19:46
160	T2.081811.194942	WG373676-40	CCV		1		08/18/11 19:49
161	T2.081811.195257	WG373676-41	CCB		1		08/18/11 19:52
162	T2.081811.195628	WG373273-05	Matrix Spike Duplica		1	L11080450-44	08/18/11 19:56
163	T2.081811.195939	L11080450-47	10944-C0028		1		08/18/11 19:59
164	T2.081811.200253	L11080450-48	10944-C0029		1		08/18/11 20:02
165	T2.081811.200606	L11080451-01	10944-C0030		1		08/18/11 20:06
166	T2.081811.200920	L11080451-02	10944-C0031		1		08/18/11 20:09
167	T2.081811.201233	L11080451-03	10944-C0032		1		08/18/11 20:12
168	T2.081811.201547	L11080451-04	10944-C0033		1		08/18/11 20:15
169	T2.081811.201906	WG373676-42	CCV		1		08/18/11 20:19
170	T2.081811.202221	WG373676-43	CCB		1		08/18/11 20:22

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 081811T2.2
 Analyst1: PDM Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 38620

Calibration Std: STD46671 ICV Std: STD46598 Post Spike: STD45109
 ICSA: STD46821 ICSAB: STD46820 Int. Std: STD46827
 CCV: STD46918 LLCCV: _____

373576,373582,373583,3673500,373584,373585,

Workgroups:

Comments: Sequences 138 through 168 and 183 through 318 were not reported due to CCV failures.

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
171	T2.081811.202551	WG373274-02	Method/Prep Blank	1/50	1		08/18/11 20:25
172	T2.081811.202916	WG373274-03	Laboratory Control S	1/50	1		08/18/11 20:29
173	T2.081811.203238	L11080451-05	10944-C0034	1.342/50	1		08/18/11 20:32
174	T2.081811.203553	WG373585-01	Post Digestion Spike		1	L11080451-05	08/18/11 20:35
175	T2.081811.203904	WG373585-02	Serial Dilution		5	L11080451-05	08/18/11 20:39
176	T2.081811.204220	WG373585-02	Serial Dilution		25	L11080451-05	08/18/11 20:42
177	T2.081811.204543	L11080451-06	10944-C0035	1.47/50	1		08/18/11 20:45
178	T2.081811.204901	L11080451-07	10944-C0036	1.372/50	1		08/18/11 20:49
179	T2.081811.205214	L11080451-08	10944-C0037	1.342/50	1		08/18/11 20:52
180	T2.081811.205527	L11080451-09	10944-C0038	1.375/50	1		08/18/11 20:55
181	T2.081811.205851	WG373676-44	CCV		1		08/18/11 20:58
182	T2.081811.210206	WG373676-45	CCB		1		08/18/11 21:02
183	T2.081811.210533	L11080451-10	10944-C0039		1		08/18/11 21:05
184	T2.081811.210846	L11080451-11	10944-C0040		1		08/18/11 21:08
185	T2.081811.211159	L11080451-12	10944-C0041		1		08/18/11 21:11
186	T2.081811.211513	L11080451-13	10944-C0042		1		08/18/11 21:15
187	T2.081811.211827	L11080451-14	10944-C0043		1		08/18/11 21:18
188	T2.081811.212140	L11080451-15	10944-C0044		1		08/18/11 21:21
189	T2.081811.212458	L11080451-16	10944-C0045		1		08/18/11 21:24
190	T2.081811.212811	L11080451-17	10944-C0046		1		08/18/11 21:28
191	T2.081811.213124	L11080451-18	10944-C0047		1		08/18/11 21:31
192	T2.081811.213445	L11080451-19	10944-C0048		1		08/18/11 21:34
193	T2.081811.213816	WG373676-46	CCV		1		08/18/11 21:38
194	T2.081811.214130	WG373676-47	CCB		1		08/18/11 21:41
195	T2.081811.214501	L11080451-20	10944-C0049		1		08/18/11 21:45
196	T2.081811.214822	L11080451-21	10944-C0050		1		08/18/11 21:48
197	T2.081811.215144	L11080451-22	10944-C0051		1		08/18/11 21:51
198	T2.081811.215513	L11080451-23	10944-C0052		1		08/18/11 21:55
199	T2.081811.215826	WG373274-01	Reference Sample		1	L11080451-24	08/18/11 21:58
200	T2.081811.220139	WG373274-04	Matrix Spike		1	L11080451-24	08/18/11 22:01
201	T2.081811.220459	WG373274-05	Matrix Spike Duplica		1	L11080451-24	08/18/11 22:04
202	T2.081811.220827	WG373676-48	CCV		1		08/18/11 22:08
203	T2.081811.221142	WG373676-49	CCB		1		08/18/11 22:11
204	T2.081811.221512	WG373287-02	Method/Prep Blank		1		08/18/11 22:15

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 081811T2.2
 Analyst1: PDM Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 38620

Calibration Std: STD46671 ICV Std: STD46598 Post Spike: STD45109
 ICSA: STD46821 ICSAB: STD46820 Int. Std: STD46827
 CCV: STD46918 LLCCV: _____

373576,373582,373583,3673500,373584,373585,

Workgroups:

Comments: Sequences 138 through 168 and 183 through 318 were not reported due to CCV failures.

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
205	T2.081811.221837	WG373287-03	Laboratory Control S		1		08/18/11 22:18
206	T2.081811.222201	L11080451-25	10944-C0054		1		08/18/11 22:22
207	T2.081811.222522	WG373586-01	Post Digestion Spike		1	L11080451-25	08/18/11 22:25
208	T2.081811.222841	WG373586-02	Serial Dilution		5	L11080451-25	08/18/11 22:28
209	T2.081811.223156	WG373586-02	Serial Dilution		25	L11080451-25	08/18/11 22:31
210	T2.081811.223518	L11080451-26	10944-C0055		1		08/18/11 22:35
211	T2.081811.223830	L11080451-27	10946-C0001		1		08/18/11 22:38
212	T2.081811.224144	L11080451-28	10946-C0002		1		08/18/11 22:41
213	T2.081811.224459	L11080451-29	10946-C0003		1		08/18/11 22:44
214	T2.081811.224821	WG373676-50	CCV		1		08/18/11 22:48
215	T2.081811.225135	WG373676-51	CCB		1		08/18/11 22:51
216	T2.081811.225501	L11080451-30	10946-C0004		1		08/18/11 22:55
217	T2.081811.225822	WG373287-01	Reference Sample		1	L11080451-31	08/18/11 22:58
218	T2.081811.230135	WG373287-04	Matrix Spike		1	L11080451-31	08/18/11 23:01
219	T2.081811.230448	WG373287-05	Matrix Spike Duplica		1	L11080451-31	08/18/11 23:04
220	T2.081811.230800	L11080451-34	10946-C0006		1		08/18/11 23:08
221	T2.081811.231122	L11080451-35	10946-C0007		1		08/18/11 23:11
222	T2.081811.231453	L11080451-36	10946-C0008		1		08/18/11 23:14
223	T2.081811.231815	L11080451-37	10946-C0009		1		08/18/11 23:18
224	T2.081811.232133	L11080451-38	10946-C0010		1		08/18/11 23:21
225	T2.081811.232447	L11080451-39	10946-C0011		1		08/18/11 23:24
226	T2.081811.232807	WG373676-52	CCV		1		08/18/11 23:28
227	T2.081811.233122	WG373676-53	CCB		1		08/18/11 23:31
228	T2.081811.233449	L11080451-40	10946-C0012		1		08/18/11 23:34
229	T2.081811.233807	L11080451-41	10946-C0013		1		08/18/11 23:38
230	T2.081811.234121	L11080451-42	10946-C0014		1		08/18/11 23:41
231	T2.081811.234439	L11080451-43	10946-C0015		1		08/18/11 23:44
232	T2.081811.234753	L11080451-44	10946-C0016		1		08/18/11 23:47
233	T2.081811.235106	L11080451-45	10946-C0017		1		08/18/11 23:51
234	T2.081811.235422	L11080451-46	10946-C0018		1		08/18/11 23:54
235	T2.081811.235739	WG373676-54	CCV		1		08/18/11 23:57
236	T2.081911.000053	WG373676-55	CCB		1		08/19/11 00:00
237	T2.081911.000423	WG373298-02	Method/Prep Blank		1		08/19/11 00:04
238	T2.081911.000748	WG373298-03	Laboratory Control S		1		08/19/11 00:07

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 081811T2.2
 Analyst1: PDM Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 38620

Calibration Std: STD46671 ICV Std: STD46598 Post Spike: STD45109
 ICSA: STD46821 ICSAB: STD46820 Int. Std: STD46827
 CCV: STD46918 LLCCV: _____

373576,373582,373583,3673500,373584,373585,

Workgroups:

Comments: Sequences 138 through 168 and 183 through 318 were not reported due to CCV failures.

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
239	T2.081911.001111	L11080451-47	10946-C0019		1		08/19/11 00:11
240	T2.081911.001423	WG373587-01	Post Digestion Spike		1	L11080451-47	08/19/11 00:14
241	T2.081911.001733	WG373587-02	Serial Dilution		5	L11080451-47	08/19/11 00:17
242	T2.081911.002048	WG373587-02	Serial Dilution		25	L11080451-47	08/19/11 00:20
243	T2.081911.002410	L11080451-48	10946-C0020		1		08/19/11 00:24
244	T2.081911.002729	L11080452-01	10946-C0021		1		08/19/11 00:27
245	T2.081911.003043	WG373298-01	Reference Sample		1	L11080452-02	08/19/11 00:30
246	T2.081911.003357	WG373298-04	Matrix Spike		1	L11080452-02	08/19/11 00:33
247	T2.081911.003716	WG373676-56	CCV		1		08/19/11 00:37
248	T2.081911.004031	WG373676-57	CCB		1		08/19/11 00:40
249	T2.081911.004359	WG373298-05	Matrix Spike Duplica		1	L11080452-02	08/19/11 00:43
250	T2.081911.004711	L11080452-05	10946-C0023		1		08/19/11 00:47
251	T2.081911.005025	L11080452-06	10946-C0024		1		08/19/11 00:50
252	T2.081911.005339	L11080452-07	10946-C0025		1		08/19/11 00:53
253	T2.081911.005652	L11080452-08	10946-C0026		1		08/19/11 00:56
254	T2.081911.010005	L11080452-09	10946-C0027		1		08/19/11 01:00
255	T2.081911.010319	L11080452-10	10946-C0028		1		08/19/11 01:03
256	T2.081911.010633	L11080452-11	10946-C0029		1		08/19/11 01:06
257	T2.081911.010947	L11080452-12	10946-C0030		1		08/19/11 01:09
258	T2.081911.011300	L11080452-13	10946-C0031		1		08/19/11 01:13
259	T2.081911.011614	WG373676-58	CCV		1		08/19/11 01:16
260	T2.081911.011928	WG373676-59	CCB		1		08/19/11 01:19
261	T2.081911.012258	L11080452-14	10946-C0032		1		08/19/11 01:22
262	T2.081911.012612	L11080452-15	10946-C0033		1		08/19/11 01:26
263	T2.081911.012925	L11080452-16	10946-C0034		1		08/19/11 01:29
264	T2.081911.013240	L11080452-17	10946-C0035		1		08/19/11 01:32
265	T2.081911.013558	L11080452-21	10946-C0037		1		08/19/11 01:35
266	T2.081911.013911	L11080452-22	10946-C0038		1		08/19/11 01:39
267	T2.081911.014224	L11080452-23	10946-C0039		1		08/19/11 01:42
268	T2.081911.014542	WG373676-60	CCV		1		08/19/11 01:45
269	T2.081911.014856	WG373676-61	CCB		1		08/19/11 01:48
270	T2.081911.015229	WG372782	PBS 44		1		08/19/11 01:52
271	T2.081911.015554	LC-SS	LCSS 44		1		08/19/11 01:55
272	T2.081911.015917	L11080251-43	11553-C0013		1		08/19/11 01:59

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 081811T2.2
 Analyst1: PDM Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 38620

Calibration Std: STD46671 ICV Std: STD46598 Post Spike: STD45109
 ICSA: STD46821 ICSAB: STD46820 Int. Std: STD46827
 CCV: STD46918 LLCCV: _____

373576,373582,373583,3673500,373584,373585,

Workgroups:

Comments: Sequences 138 through 168 and 183 through 318 were not reported due to CCV failures.

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
273	T2.081911.020242	L1108025143-PS	L1108025143PS		1		08/19/11 02:02
274	T2.081911.020601	L1108025143S-DL	L1108025143SDL		1		08/19/11 02:06
275	T2.081911.020922	L1108025143S-DL	L1108025143SDL		1		08/19/11 02:09
276	T2.081911.021244	L11080302-14	10221-C0014		1	WG372782-01	08/19/11 02:12
277	T2.081911.021604	L110803021-4S	L1108030214S		1		08/19/11 02:16
278	T2.081911.021924	L1108030214-SD	L1108030214SD		1		08/19/11 02:19
279	T2.081911.022246	L11080251-44	11557-C0001		1		08/19/11 02:22
280	T2.081911.022621	WG373676-62	CCV		1		08/19/11 02:26
281	T2.081911.022936	WG373676-63	CCB		1		08/19/11 02:29
282	T2.081911.023309	L11080251-45	11557-C0002		1		08/19/11 02:33
283	T2.081911.023632	L11080251-46	11557-C0003		1		08/19/11 02:36
284	T2.081911.023957	L11080251-47	11557-C0004		1		08/19/11 02:39
285	T2.081911.024322	L11080251-48	11557-C0005		1		08/19/11 02:43
286	T2.081911.024651	L11080458-01	11958-C0008		5		08/19/11 02:46
287	T2.081911.025005	WG373323-01	Post Digestion Spike		5	L11080450-14	08/19/11 02:50
288	T2.081911.025316	WG373323-02	Serial Dilution		25	L11080450-14	08/19/11 02:53
289	T2.081911.025633	WG373323-03	Post Digestion Spike		125	L11080458-01	08/19/11 02:56
290	T2.081911.025955	WG372741-01	Reference Sample		2	L11080252-10	08/19/11 02:59
291	T2.081911.030310	WG372741-04	Matrix Spike		2	L11080252-10	08/19/11 03:03
292	T2.081911.030632	WG373676-64	CCV		1		08/19/11 03:06
293	T2.081911.030946	WG373676-65	CCB		1		08/19/11 03:09
294	T2.081911.031318	WG372741-05	Matrix Spike Duplica		2	L11080252-10	08/19/11 03:13
295	T2.081911.031634	L11080525-13	L1108052513		2		08/19/11 03:16
296	T2.081911.031949	L11080252-27	75718-C0012		2		08/19/11 03:19
297	T2.081911.032303	L11080252-29	75718-C0027		2		08/19/11 03:23
298	T2.081911.032618	L11080449-23	10919-C0038		1		08/19/11 03:26
299	T2.081911.032932	L11080449-24	10919-C0039		1		08/19/11 03:29
300	T2.081911.033247	L11080449-25	10919-C0040		1		08/19/11 03:32
301	T2.081911.033601	L11080449-26	10919-C0041		1		08/19/11 03:36
302	T2.081911.033916	L11080449-27	10919-C0042		1		08/19/11 03:39
303	T2.081911.034230	L11080449-28	10919-C0043		1		08/19/11 03:42
304	T2.081911.034607	WG373676-66	CCV		1		08/19/11 03:46
305	T2.081911.034920	WG373676-67	CCB		1		08/19/11 03:49
306	T2.081911.035253	L11080449-29	10919-C0044		1		08/19/11 03:52

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 081811T2.2
 Analyst1: PDM Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 38620

Calibration Std: STD46671 ICV Std: STD46598 Post Spike: STD45109
 ICSA: STD46821 ICSAB: STD46820 Int. Std: STD46827
 CCV: STD46918 LLCCV: _____

373576,373582.373583,3673500,373584,373585, _____

Workgroups:

Comments: Sequences 138 through 168 and 183 through 318 were not reported due to CCV failures.

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
307	T2.081911.035625	L11080449-30	10919-C0045		1		08/19/11 03:56
308	T2.081911.035956	L11080449-31	10919-C0046		1		08/19/11 03:59
309	T2.081911.040310	L11080449-32	10919-C0047		1		08/19/11 04:03
310	T2.081911.040640	L11080449-33	10919-C0048		1		08/19/11 04:06
311	T2.081911.040954	L11080449-34	10919-C0049		1		08/19/11 04:09
312	T2.081911.041313	L11080449-35	10919-C0050		1		08/19/11 04:13
313	T2.081911.041627	L11080449-36	10919-C0051		1		08/19/11 04:16
314	T2.081911.041942	L11080449-37	10919-C0052		1		08/19/11 04:19
315	T2.081911.042256	L11080449-38	10919-C0053		1		08/19/11 04:22
316	T2.081911.042626	L11080449-39	10919-C0054		1		08/19/11 04:26
317	T2.081911.042946	WG373676-68	CCV		1		08/19/11 04:29
318	T2.081911.043300	WG373676-69	CCB		1		08/19/11 04:33

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 082211T2.1
 Analyst1: KHR Analyst2: PDM
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 38620

Calibration Std: STD46671 ICV Std: STD46598 Post Spike: STD45109
 ICSA: STD47174 ICSAB: STD46820 Int. Std: STD46827
 CCV: STD46918 LLCCV: _____

373729,373582,373583,373116,373355,373849,373847,373874

Workgroups:

Comments: Additional Workgroups: 373588, 373585, 373500, 373851, 373887, 373888

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
1	T2.082211.100245	WG373833-01	Calibration Point		1		08/22/11 10:02
2	T2.082211.100613	WG373833-02	Calibration Point		1		08/22/11 10:06
3	T2.082211.100940	WG373833-03	Calibration Point		1		08/22/11 10:09
4	T2.082211.101306	WG373833-04	Calibration Point		1		08/22/11 10:13
5	T2.082211.101619	WG373833-05	Calibration Point		1		08/22/11 10:16
6	T2.082211.101934	WG373833-06	Initial Calibration Verification		1		08/22/11 10:19
7	T2.082211.102246	WG373833-07	Initial Calib Blank		1		08/22/11 10:22
8	T2.082211.102613	WG373833-08	Interference Check		1		08/22/11 10:26
9	T2.082211.102933	WG373833-09	Interference Check		1		08/22/11 10:29
10	T2.082211.103254	WG373833-10	CCV		1		08/22/11 10:32
11	T2.082211.103606	WG373833-11	CCB		1		08/22/11 10:36
12	T2.082211.103959	WG373658-02	Method/Prep Blank	1/50	1		08/22/11 10:39
13	T2.082211.104314	WG373658-03	Laboratory Control S	1/50	1		08/22/11 10:43
14	T2.082211.104640	WG373658-01	Reference Sample		1	L11080569-29	08/22/11 10:46
15	T2.082211.105000	WG373658-04	Matrix Spike	1.398/50	1	L11080569-29	08/22/11 10:50
16	T2.082211.105319	WG373658-05	Matrix Spike Duplica	1.398/50	1	L11080569-29	08/22/11 10:53
17	T2.082211.105655	L11080459-01	11958-C0011	1.016/50	1		08/22/11 10:56
18	T2.082211.110030	WG373729-01	Post Digestion Spike		1	L11080459-01	08/22/11 11:00
19	T2.082211.110353	WG373729-02	Serial Dilution		5	L11080459-01	08/22/11 11:03
20	T2.082211.110707	WG373729-02	Serial Dilution		25	L11080459-01	08/22/11 11:07
21	T2.082211.111033	WG373833-12	CCV		1		08/22/11 11:10
22	T2.082211.111345	WG373833-13	CCB		1		08/22/11 11:13
23	T2.082211.111717	WG373429-02	Method/Prep Blank	1/50	1		08/22/11 11:17
24	T2.082211.112044	WG373429-03	Laboratory Control S	1/50	1		08/22/11 11:20
25	T2.082211.112356	L11080002-21	ANYBODY/KIM	1/50	1		08/22/11 11:23
26	T2.082211.112709	L11080002-22	ANYBODY/KIM	1/50	1		08/22/11 11:27
27	T2.082211.113022	L11080002-23	ANYBODY/KIM	1/50	1		08/22/11 11:30
28	T2.082211.113335	L11080002-24	ANYBODY/KIM	1/50	1		08/22/11 11:33
29	T2.082211.113648	L1108488-02	L110848802	1.009/50	1		08/22/11 11:36
30	T2.082211.114007	WG373582-01	Post Digestion Spike		1	L11080488-02	08/22/11 11:40
31	T2.082211.114325	WG373582-02	Serial Dilution		5	L11080488-02	08/22/11 11:43
32	T2.082211.114645	WG373582-02	Serial Dilution		25	L11080488-02	08/22/11 11:46
33	T2.082211.115010	WG373833-14	CCV		1		08/22/11 11:50
34	T2.082211.115323	WG373833-15	CCB		1		08/22/11 11:53

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 082211T2.1
 Analyst1: KHR Analyst2: PDM
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 38620

Calibration Std: STD46671 ICV Std: STD46598 Post Spike: STD45109
 ICSA: STD47174 ICSAB: STD46820 Int. Std: STD46827
 CCV: STD46918 LLCCV: _____

373729,373582,373583,373116,373355,373849,373847,373874

Workgroups:

Comments: Additional Workgroups: 373588, 373585, 373500, 373851, 373887, 373888

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
35	T2.082211.115658	WG373429-01	Reference Sample		1	L11080501-17	08/22/11 11:56
36	T2.082211.120013	WG373429-04	Matrix Spike	1.37/50	1	L11080501-17	08/22/11 12:00
37	T2.082211.120322	WG373429-05	Matrix Spike Duplica	1.37/50	1	L11080501-17	08/22/11 12:03
38	T2.082211.120631	L11080514-01	AFTER CLEANUP	1.019/50	1		08/22/11 12:06
39	T2.082211.121000	L11080514-03	BEFORE CLEANUP(RLOBO	1.011/50	1		08/22/11 12:10
40	T2.082211.121332	L11080532-02	081211BA	1.024/50	1		08/22/11 12:13
41	T2.082211.121644	L11080532-04	081211FA	1.021/50	1		08/22/11 12:16
42	T2.082211.121955	L11080532-06	081211BB	1.017/50	1		08/22/11 12:19
43	T2.082211.122342	L11080488-01	75304-C0014	1.012/50	1		08/22/11 12:23
44	T2.082211.122701	L11080488-03	75304-C0016	1.017/50	1		08/22/11 12:27
45	T2.082211.123017	WG373833-16	CCV		1		08/22/11 12:30
46	T2.082211.123329	WG373833-17	CCB		1		08/22/11 12:33
47	T2.082211.123703	L11080488-04	75304-C0017	1.024/50	1		08/22/11 12:37
48	T2.082211.124021	L11080488-05	75304-C0018	1.022/50	1		08/22/11 12:40
49	T2.082211.124341	L11080488-06	75304-C0019	1.014/50	1		08/22/11 12:43
50	T2.082211.124701	L11080488-07	75304-C0020	1.021/50	1		08/22/11 12:47
51	T2.082211.125015	L11080488-08	75304-C0021	1.021/50	1		08/22/11 12:50
52	T2.082211.125328	L11080488-09	75304-C0023	1.013/50	1		08/22/11 12:53
53	T2.082211.125646	L11080501-16	5386-C0909	1.484/50	1		08/22/11 12:56
54	T2.082211.130020	L11080437-01	5386-C0547	1.434/50	2		08/22/11 13:00
55	T2.082211.130335	WG373583-03	Post Digestion Spike		2	L11080437-01	08/22/11 13:03
56	T2.082211.130645	WG373583-04	Serial Dilution		10	L11080437-01	08/22/11 13:06
57	T2.082211.131011	WG373833-18	CCV		1		08/22/11 13:10
58	T2.082211.131324	WG373833-19	CCB		1		08/22/11 13:13
59	T2.082211.131659	L11080569-02	12224-C0048	1.31/50	1		08/22/11 13:16
60	T2.082211.132014	L11080569-03	12224-C0049	1.32/50	1		08/22/11 13:20
61	T2.082211.132328	L11080569-04	12224-C0050	1.403/50	1		08/22/11 13:23
62	T2.082211.132644	L11080569-05	12224-C0051	1.33/50	1		08/22/11 13:26
63	T2.082211.132959	L11080569-06	12224-C0052	1.461/50	1		08/22/11 13:29
64	T2.082211.133320	L11080569-07	12224-C0053	1.444/50	1		08/22/11 13:33
65	T2.082211.133633	L11080569-08	12224-C0054	1.377/50	1		08/22/11 13:36
66	T2.082211.133948	L11080569-09	12224-C0055	1.337/50	1		08/22/11 13:39
67	T2.082211.134302	L11080569-10	12224-C0056	1.38/50	1		08/22/11 13:43
68	T2.082211.134616	L11080569-11	3586-C0001	1.337/50	1		08/22/11 13:46

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 082211T2.1
 Analyst1: KHR Analyst2: PDM
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 38620

Calibration Std: STD46671 ICV Std: STD46598 Post Spike: STD45109
 ICSA: STD47174 ICSAB: STD46820 Int. Std: STD46827
 CCV: STD46918 LLCCV: _____

373729,373582,373583,373116,373355,373849,373847,373874

Workgroups:

Comments: Additional Workgroups: 373588,373585,373500,373851,373887,373888

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
69	T2.082211.134950	WG373833-20	CCV		1		08/22/11 13:49
70	T2.082211.135302	WG373833-21	CCB		1		08/22/11 13:53
71	T2.082211.135635	L11080569-12	3586-C0002	1.321/50	1		08/22/11 13:56
72	T2.082211.140012	L11080569-13	3586-C0003	1.39/50	1		08/22/11 14:00
73	T2.082211.140349	L11080569-14	3586-C0004	1.458/50	1		08/22/11 14:03
74	T2.082211.140717	L11080569-15	3586-C0005	1.443/50	1		08/22/11 14:07
75	T2.082211.141047	L11080569-16	3586-C0006	1.438/50	1		08/22/11 14:10
76	T2.082211.141415	L11080569-17	3586-C0007	1.376/50	1		08/22/11 14:14
77	T2.082211.141751	L11080569-18	3586-C0008	1.341/50	1		08/22/11 14:17
78	T2.082211.142126	L11080569-19	3586-C0009	1.447/50	1		08/22/11 14:21
79	T2.082211.142455	WG373833-22	CCV		1		08/22/11 14:24
80	T2.082211.142807	WG373833-23	CCB		1		08/22/11 14:28
81	T2.082211.143140	WG373033-02	Method/Prep Blank	1/50	1		08/22/11 14:31
82	T2.082211.143507	WG373033-03	Laboratory Control S	1/50	1		08/22/11 14:35
83	T2.082211.143822	L11080300-12	AOCD-SB08A(4-6)08032011	1.379/50	1		08/22/11 14:38
84	T2.082211.144151	L11080300-13	AOCD-SB08B(10-12)080320	1.316/50	1		08/22/11 14:41
85	T2.082211.144514	WG373116-01	Post Digestion Spike		1	L11080300-13	08/22/11 14:45
86	T2.082211.144833	WG373116-02	Serial Dilution		5	L11080300-13	08/22/11 14:48
87	T2.082211.145148	WG373116-02	Serial Dilution		25	L11080300-13	08/22/11 14:51
88	T2.082211.145509	L11080300-14	AOCD-SB09(4-6)08022011	1.33/50	1		08/22/11 14:55
89	T2.082211.145833	L11080300-15	AOCD-SB10(0-2)08012011	1.323/50	1		08/22/11 14:58
90	T2.082211.150152	L11080300-16	AOCD-SB11(4-6)08022011	1.452/50	1		08/22/11 15:01
91	T2.082211.150531	WG373833-24	CCV		1		08/22/11 15:05
92	T2.082211.150844	WG373833-25	CCB		1		08/22/11 15:08
93	T2.082211.151216	L11080300-17	AOCD-SB12(0-2)08022011	1.372/50	1		08/22/11 15:12
94	T2.082211.151547	L11080300-18	AOCD-SB13(9-12)08022011	1.333/50	1		08/22/11 15:15
95	T2.082211.151910	L11080300-19	AOCD-SB14(2-4)08012011	1.425/50	1		08/22/11 15:19
96	T2.082211.152239	L11080300-20	AOCD-SB15(0-2)008012011	1.338/50	1		08/22/11 15:22
97	T2.082211.152609	L11080332-01	DE-17E-07262011	1.357/50	1		08/22/11 15:26
98	T2.082211.152931	L11080332-02	DE-17F-07262011	1.494/50	1		08/22/11 15:29
99	T2.082211.153252	L11080332-06	DE-18A-07252011	1.3/50	1		08/22/11 15:32
100	T2.082211.153625	L11080332-07	DE-18B-07252011	1.331/50	1		08/22/11 15:36
101	T2.082211.153951	L11080332-08	DE-18C-07252011		1		08/22/11 15:39
102	T2.082211.154309	L11080332-09	DE-18D-07252011	1.378/50	1		08/22/11 15:43

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 082211T2.1
 Analyst1: KHR Analyst2: PDM
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 38620

Calibration Std: STD46671 ICV Std: STD46598 Post Spike: STD45109
 ICSA: STD47174 ICSAB: STD46820 Int. Std: STD46827
 CCV: STD46918 LLCCV: _____

373729,373582,373583,373116,373355,373849,373847,373874

Workgroups:

Comments: Additional Workgroups: 373588,,373585,373500,373851,373887,373888

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
103	T2.082211.154651	WG373833-26	CCV		1		08/22/11 15:46
104	T2.082211.155003	WG373833-27	CCB		1		08/22/11 15:50
105	T2.082211.155335	L11080332-10	DE-18D-07252011-DUP	1.347/50	1		08/22/11 15:53
106	T2.082211.155709	L11080332-11	DE-18E-07252011	1.426/50	1		08/22/11 15:57
107	T2.082211.160045	L11080332-12	DE-18F-07252011	1.368/50	1		08/22/11 16:00
108	T2.082211.160414	L11080332-13	DE-18G-07252011	1.422/50	1		08/22/11 16:04
109	T2.082211.160735	WG373033-01	Reference Sample		1	L11080332-19	08/22/11 16:07
110	T2.082211.161103	WG373033-04	Matrix Spike	1.337/50	1	L11080332-19	08/22/11 16:11
111	T2.082211.161429	WG373033-05	Matrix Spike Duplica	1.337/50	1	L11080332-19	08/22/11 16:14
112	T2.082211.161758	L11080251-16	11531-C0009	1.027/50	2		08/22/11 16:17
113	T2.082211.162113	WG373833-28	Interference Check		1		08/22/11 16:21
114	T2.082211.162433	WG373833-29	Interference Check		1		08/22/11 16:24
115	T2.082211.162752	WG373833-30	CCV		1		08/22/11 16:27
116	T2.082211.163103	WG373833-31	CCB		1		08/22/11 16:31
117	T2.082211.163432	WG373152-02	Method/Prep Blank	1/50	1		08/22/11 16:34
118	T2.082211.163800	WG373152-03	Laboratory Control S	1/50	1		08/22/11 16:38
119	T2.082211.164114	L11080332-57	DE-21D-07262011-DUP	1.354/50	1		08/22/11 16:41
120	T2.082211.164451	WG373849-01	Post Digestion Spike		1	L11080332-57	08/22/11 16:44
121	T2.082211.164817	WG373849-02	Serial Dilution		5	L11080332-57	08/22/11 16:48
122	T2.082211.165132	WG373849-02	Serial Dilution		25	L11080332-57	08/22/11 16:51
123	T2.082211.165449	L11080332-61	DE-21G-07262011	1.32/50	1		08/22/11 16:54
124	T2.082211.165810	L11080332-62	DE-13B-07262011	1.475/50	1		08/22/11 16:58
125	T2.082211.170132	L11080332-63	DE-13C-07262011	1.423/50	1		08/22/11 17:01
126	T2.082211.170452	L11080332-64	DE-13D-07262011	1.322/50	1		08/22/11 17:04
127	T2.082211.170815	WG373833-32	CCV		1		08/22/11 17:08
128	T2.082211.171128	WG373833-33	CCB		1		08/22/11 17:11
129	T2.082211.171457	WG373152-01	Reference Sample		1	L11080332-65	08/22/11 17:14
130	T2.082211.171818	WG373152-04	Matrix Spike	1.358/50	1	L11080332-65	08/22/11 17:18
131	T2.082211.172135	WG373152-05	Matrix Spike Duplica	1.358/50	1	L11080332-65	08/22/11 17:21
132	T2.082211.172451	L11080332-68	DE-13F-07262011	1.461/50	1		08/22/11 17:24
133	T2.082211.172820	L11080332-69	DE-13G-07262011	1.37/50	1		08/22/11 17:28
134	T2.082211.173149	L11080332-70	DE-13G-07262011-DUP	1.454/50	1		08/22/11 17:31
135	T2.082211.173518	L11080332-71	DE-14B-07262011	1.432/50	1		08/22/11 17:35
136	T2.082211.173850	L11080332-72	DE-14C-07262011	1.382/50	1		08/22/11 17:38

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Microbac Laboratories Inc.

Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 082211T2.1
 Analyst1: KHR Analyst2: PDM
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 38620

Calibration Std: STD46671 ICV Std: STD46598 Post Spike: STD45109
 ICSA: STD47174 ICSAB: STD46820 Int. Std: STD46827
 CCV: STD46918 LLCCV: _____

373729,373582,373583,373116,373355,373849,373847,373874

Workgroups:

Comments: Additional Workgroups: 373588,373585,373500,373851,373887,373888

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
137	T2.082211.174211	L11080332-73	DE-14D-07262011	1.414/50	1		08/22/11 17:42
138	T2.082211.174530	L11080332-74	DE-14E-07262011	1.361/50	1		08/22/11 17:45
139	T2.082211.174902	WG373833-34	CCV		1		08/22/11 17:49
140	T2.082211.175214	WG373833-35	CCB		1		08/22/11 17:52
141	T2.082211.175547	L11080332-75	DE-14F-07262011	1.303/50	1		08/22/11 17:55
142	T2.082211.175900	L11080332-76	DE-14F-07262011-DUP	1.36/50	1		08/22/11 17:59
143	T2.082211.180222	L11080332-77	DE-14G-07262011	1.383/50	1		08/22/11 18:02
144	T2.082211.180547	L11080332-78	DE-15B-07262011	1.335/50	1		08/22/11 18:05
145	T2.082211.180907	L11080332-79	DE-15G-07262011	1.421/50	1		08/22/11 18:09
146	T2.082211.181235	L11080332-80	DE-15G-07262011-DUP	1.434/50	1		08/22/11 18:12
147	T2.082211.181559	L11080332-81	DE-16B-07262011	1.435/50	1		08/22/11 18:15
148	T2.082211.181930	WG373833-36	Interference Check		1		08/22/11 18:19
149	T2.082211.182247	WG373833-37	Interference Check		1		08/22/11 18:22
150	T2.082211.182611	WG373833-38	CCV		1		08/22/11 18:26
151	T2.082211.182923	WG373833-39	CCB		1		08/22/11 18:29
152	T2.082211.183256	WG373151-02	Method/Prep Blank	1/50	1		08/22/11 18:32
153	T2.082211.183624	WG373151-03	Laboratory Control S	1/50	1		08/22/11 18:36
154	T2.082211.183939	L11080332-38	DE-25E-07262011	1.309/50	1		08/22/11 18:39
155	T2.082211.184301	WG373847-01	Post Digestion Spike		1	L11080332-38	08/22/11 18:43
156	T2.082211.184621	WG373847-02	Serial Dilution		5	L11080332-38	08/22/11 18:46
157	T2.082211.184937	WG373847-02	Serial Dilution		25	L11080332-38	08/22/11 18:49
158	T2.082211.185259	L11080332-39	DE-25F-07262011	1.341/50	1		08/22/11 18:52
159	T2.082211.185619	L11080332-40	DE-25G-07262011	1.367/50	1		08/22/11 18:56
160	T2.082211.185939	L11080332-41	DE-24A-07262011	1.333/50	1		08/22/11 18:59
161	T2.082211.190257	L11080332-42	DE-24G-07262011	1.431/50	1		08/22/11 19:02
162	T2.082211.190610	WG373833-40	CCV		1		08/22/11 19:06
163	T2.082211.190922	WG373833-41	CCB		1		08/22/11 19:09
164	T2.082211.191254	L11080332-43	DE-23A-07262011	1.436/50	1		08/22/11 19:12
165	T2.082211.191604	L11080332-44	DE-23B-07262011	1.38/50	1		08/22/11 19:16
166	T2.082211.191915	L11080332-45	DE-23C-07262011	1.313/50	1		08/22/11 19:19
167	T2.082211.192231	L11080332-46	DE-23D-07262011	1.441/50	1		08/22/11 19:22
168	T2.082211.192553	L11080332-47	DE-23E-07262011	1.303/50	1		08/22/11 19:25
169	T2.082211.192915	L11080332-48	DE-23E-07262011-DUP	1.495/50	1		08/22/11 19:29
170	T2.082211.193236	L11080332-49	DE-23F-07262011	1.399/50	1		08/22/11 19:32

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 082211T2.1
 Analyst1: KHR Analyst2: PDM
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 38620

Calibration Std: STD46671 ICV Std: STD46598 Post Spike: STD45109
 ICSA: STD47174 ICSAB: STD46820 Int. Std: STD46827
 CCV: STD46918 LLCCV: _____

373729,373582,373583,373116,373355,373849,373847,373874

Workgroups:

Comments: Additional Workgroups: 373588,373585,373500,373851,373887,373888

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
171	T2.082211.193558	L11080332-50	DE-23G-07262011	1.434/50	1		08/22/11 19:35
172	T2.082211.193920	L11080332-51	DE-22A-07262011	1.405/50	1		08/22/11 19:39
173	T2.082211.194238	L11080332-52	DE-22G-07262011	1.409/50	1		08/22/11 19:42
174	T2.082211.194602	WG373833-42	CCV		1		08/22/11 19:46
175	T2.082211.194914	WG373833-43	CCB		1		08/22/11 19:49
176	T2.082211.195245	L11080332-53	DE-21A-07262011	1.349/50	1		08/22/11 19:52
177	T2.082211.195604	L11080332-54	DE-21B-07262011	1.411/50	1		08/22/11 19:56
178	T2.082211.195931	L11080332-55	DE-21C-07262011	1.443/50	2		08/22/11 19:59
179	T2.082211.200251	L11080332-56	DE-21D-07262011	1.41/50	1		08/22/11 20:02
180	T2.082211.200628	WG373151-01	Reference Sample		1	L11080332-58	08/22/11 20:06
181	T2.082211.200938	WG373151-04	Matrix Spike	1.415/50	1	L11080332-58	08/22/11 20:09
182	T2.082211.201256	WG373151-05	Matrix Spike Duplica	1.415/50	1	L11080332-58	08/22/11 20:12
183	T2.082211.201612	WG373833-44	CCV		1		08/22/11 20:16
184	T2.082211.201924	WG373833-45	CCB		1		08/22/11 20:19
185	T2.082211.202256	WG373833-46	Interference Check		1		08/22/11 20:22
186	T2.082211.202615	WG373833-47	Interference Check		1		08/22/11 20:26
187	T2.082211.202936	WG373313-02	Method/Prep Blank	1/50	1		08/22/11 20:29
188	T2.082211.203303	WG373313-03	Laboratory Control S	1/50	1		08/22/11 20:33
189	T2.082211.203629	L11080453-17	10983-C0022	1.373/50	1		08/22/11 20:36
190	T2.082211.203950	WG373874-01	Post Digestion Spike		1	L11080453-17	08/22/11 20:39
191	T2.082211.204309	WG373874-02	Serial Dilution		5	L11080453-17	08/22/11 20:43
192	T2.082211.204626	WG373874-02	Serial Dilution		25	L11080453-17	08/22/11 20:46
193	T2.082211.204948	L11080453-18	10983-C0023	1.433/50	1		08/22/11 20:49
194	T2.082211.205310	L11080453-19	10983-C0024	1.365/50	1		08/22/11 20:53
195	T2.082211.205632	WG373833-48	CCV		1		08/22/11 20:56
196	T2.082211.205944	WG373833-49	CCB		1		08/22/11 20:59
197	T2.082211.210316	L11080453-20	10983-C0025	1.379/50	1		08/22/11 21:03
198	T2.082211.210631	L11080453-21	10983-C0026	1.412/50	1		08/22/11 21:06
199	T2.082211.210953	L11080453-22	10983-C0027	1.473/50	1		08/22/11 21:09
200	T2.082211.211307	L11080453-23	12286-C0001	1.371/50	1		08/22/11 21:13
201	T2.082211.211620	WG373313-01	Reference Sample		1	L11080453-24	08/22/11 21:16
202	T2.082211.211933	WG373313-04	Matrix Spike	1.318/50	1	L11080453-24	08/22/11 21:19
203	T2.082211.212252	WG373313-05	Matrix Spike Duplica	1.318/50	1	L11080453-24	08/22/11 21:22
204	T2.082211.212605	L11080453-27	12286-C0003	1.362/50	1		08/22/11 21:26

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Microbac Laboratories Inc.

Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 082211T2.1
 Analyst1: KHR Analyst2: PDM
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 38620

Calibration Std: STD46671 ICV Std: STD46598 Post Spike: STD45109
 ICSA: STD47174 ICSAB: STD46820 Int. Std: STD46827
 CCV: STD46918 LLCCV: _____

373729,373582,373583,373116,373355,373849,373847,373874

Workgroups:

Comments: Additional Workgroups: 373588,373585,373500,373851,373887,373888

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
205	T2.082211.212920	L11080453-28	12286-C0004	1.338/50	1		08/22/11 21:29
206	T2.082211.213236	L11080453-29	12286-C0005	1.378/50	1		08/22/11 21:32
207	T2.082211.213553	WG373833-50	CCV		1		08/22/11 21:35
208	T2.082211.213904	WG373833-51	CCB		1		08/22/11 21:39
209	T2.082211.214236	L11080453-30	12286-C0006	1.423/50	1		08/22/11 21:42
210	T2.082211.214549	L11080453-31	12286-C0007	1.44/50	1		08/22/11 21:45
211	T2.082211.214904	L11080453-32	12286-C0008	1.312/50	1		08/22/11 21:49
212	T2.082211.215217	L11080453-33	12286-C0009	1.333/50	1		08/22/11 21:52
213	T2.082211.215531	L11080453-34	12286-C0010	1.42/50	1		08/22/11 21:55
214	T2.082211.215845	L11080453-35	12286-C0011	1.341/50	1		08/22/11 21:58
215	T2.082211.220159	L11080453-36	12286-C0012	1.328/50	1		08/22/11 22:01
216	T2.082211.220514	L11080453-37	12286-C0013	1.479/50	1		08/22/11 22:05
217	T2.082211.220829	L11080453-38	12286-C0014	1.396/50	1		08/22/11 22:08
218	T2.082211.221146	WG373833-52	CCV		1		08/22/11 22:11
219	T2.082211.221458	WG373833-53	CCB		1		08/22/11 22:14
220	T2.082211.221829	WG373306-02	Method/Prep Blank	1/50	1		08/22/11 22:18
221	T2.082211.222156	WG373306-03	Laboratory Control S	1/50	1		08/22/11 22:21
222	T2.082211.222521	WG373306-01	Reference Sample		1	L11080452-18	08/22/11 22:25
223	T2.082211.222841	WG373306-04	Matrix Spike	1.358/50	1	L11080452-18	08/22/11 22:28
224	T2.082211.223201	WG373306-05	Matrix Spike Duplica	1.358/50	1	L11080452-18	08/22/11 22:32
225	T2.082211.223521	L11080452-24	10946-C0040	1.406/50	1		08/22/11 22:35
226	T2.082211.223834	L11080452-25	10946-C0041	1.425/50	1		08/22/11 22:38
227	T2.082211.224156	WG373588-01	Post Digestion Spike		1	L11080452-25	08/22/11 22:41
228	T2.082211.224515	WG373588-02	Serial Dilution		5	L11080452-25	08/22/11 22:45
229	T2.082211.224832	WG373588-02	Serial Dilution		25	L11080452-25	08/22/11 22:48
230	T2.082211.225203	WG373833-54	CCV		1		08/22/11 22:52
231	T2.082211.225515	WG373833-55	CCB		1		08/22/11 22:55
232	T2.082211.225848	L11080452-26	10946-C0042	1.423/50	1		08/22/11 22:58
233	T2.082211.230210	L11080452-27	10946-C0043	1.458/50	1		08/22/11 23:02
234	T2.082211.230533	L11080452-28	10946-C0044	1.353/50	1		08/22/11 23:05
235	T2.082211.230854	L11080452-29	10946-C0045	1.356/50	1		08/22/11 23:08
236	T2.082211.231208	L11080452-30	10946-C0046	1.373/50	1		08/22/11 23:12
237	T2.082211.231531	L11080452-31	10946-C0047	1.322/50	1		08/22/11 23:15
238	T2.082211.231848	L11080452-32	10946-C0048	1.42/50	1		08/22/11 23:18

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 082211T2.1
 Analyst1: KHR Analyst2: PDM
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 38620

Calibration Std: STD46671 ICV Std: STD46598 Post Spike: STD45109
 ICSA: STD47174 ICSAB: STD46820 Int. Std: STD46827
 CCV: STD46918 LLCCV: _____

373729,373582,373583,373116,373355,373849,373847,373874

Workgroups:

Comments: Additional Workgroups: 373588,373585,373500,373851,373887,373888

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
239	T2.082211.232209	L11080452-33	10946-C0049	1.344/50	1		08/22/11 23:22
240	T2.082211.232531	L11080452-34	10946-C0050	1.391/50	1		08/22/11 23:25
241	T2.082211.232852	L11080452-35	10946-C0051	1.401/50	1		08/22/11 23:28
242	T2.082211.233211	WG373833-56	CCV		1		08/22/11 23:32
243	T2.082211.233523	WG373833-57	CCB		1		08/22/11 23:35
244	T2.082211.233855	L11080452-36	10946-C0052	1.362/50	1		08/22/11 23:38
245	T2.082211.234217	L11080452-37	10946-C0053	1.448/50	1		08/22/11 23:42
246	T2.082211.234534	L11080452-38	10946-C0054	1.417/50	1		08/22/11 23:45
247	T2.082211.234848	L11080452-39	10946-C0055	1.335/50	1		08/22/11 23:48
248	T2.082211.235203	L11080452-40	10946-C0056	1.492/50	1		08/22/11 23:52
249	T2.082211.235517	L11080452-41	10946-C0057	1.427/50	1		08/22/11 23:55
250	T2.082211.235834	L11080452-42	10983-C0001	1.387/50	1		08/22/11 23:58
251	T2.082311.000153	WG373833-58	CCV		1		08/23/11 00:01
252	T2.082311.000505	WG373833-59	CCB		1		08/23/11 00:05
253	T2.082311.000832	L11080451-10	10944-C0039	1.388/50	1		08/23/11 00:08
254	T2.082311.001147	L11080451-11	10944-C0040	1.372/50	1		08/23/11 00:11
255	T2.082311.001501	L11080451-12	10944-C0041	1.397/50	1		08/23/11 00:15
256	T2.082311.001815	L11080451-13	10944-C0042	1.402/50	1		08/23/11 00:18
257	T2.082311.002128	L11080451-14	10944-C0043	1.308/50	1		08/23/11 00:21
258	T2.082311.002441	L11080451-15	10944-C0044	1.426/50	1		08/23/11 00:24
259	T2.082311.002801	L11080451-16	10944-C0045	1.37/50	1		08/23/11 00:28
260	T2.082311.003116	L11080451-17	10944-C0046	1.337/50	1		08/23/11 00:31
261	T2.082311.003429	L11080451-18	10944-C0047	1.351/50	1		08/23/11 00:34
262	T2.082311.003751	L11080451-19	10944-C0048	1.369/50	1		08/23/11 00:37
263	T2.082311.004115	WG373833-60	CCV		1		08/23/11 00:41
264	T2.082311.004426	WG373833-61	CCB		1		08/23/11 00:44
265	T2.082311.004756	L11080451-20	10944-C0049	1.392/50	1		08/23/11 00:47
266	T2.082311.005118	L11080451-21	10944-C0050	1.337/50	1		08/23/11 00:51
267	T2.082311.005440	L11080451-22	10944-C0051	1.332/50	1		08/23/11 00:54
268	T2.082311.005809	L11080451-23	10944-C0052	1.338/50	1		08/23/11 00:58
269	T2.082311.010122	WG373274-01	Reference Sample		1	L11080451-24	08/23/11 01:01
270	T2.082311.010435	WG373274-04	Matrix Spike	1.447/50	1	L11080451-24	08/23/11 01:04
271	T2.082311.010755	WG373274-05	Matrix Spike Duplica	1.447/50	1	L11080451-24	08/23/11 01:07
272	T2.082311.011116	L11080450-07	10936-C0013	1.373/50	1		08/23/11 01:11

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 082211T2.1
 Analyst1: KHR Analyst2: PDM
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 38620

Calibration Std: STD46671 ICV Std: STD46598 Post Spike: STD45109
 ICSA: STD47174 ICSAB: STD46820 Int. Std: STD46827
 CCV: STD46918 LLCCV: _____

373729,373582,373583,373116,373355,373849,373847,373874

Workgroups:

Comments: Additional Workgroups: 373588, 373585, 373500, 373851, 373887, 373888

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
273	T2.082311.011430	L11080450-08	10936-C0014	1.357/50	1		08/23/11 01:14
274	T2.082311.011745	L11080450-09	10936-C0015	1.463/50	1		08/23/11 01:17
275	T2.082311.012105	WG373833-62	CCV		1		08/23/11 01:21
276	T2.082311.012416	WG373833-63	CCB		1		08/23/11 01:24
277	T2.082311.012748	L11080450-10	10936-C0016	1.485/50	1		08/23/11 01:27
278	T2.082311.013102	L11080450-11	10936-C0017	1.457/50	1		08/23/11 01:31
279	T2.082311.013432	L11080450-12	10936-C0018	1.337/50	1		08/23/11 01:34
280	T2.082311.013748	L11080450-13	10936-C0019	1.383/50	1		08/23/11 01:37
281	T2.082311.014103	WG373526-01	Method/Prep Blank	.25/50	1		08/23/11 01:41
282	T2.082311.014430	WG373526-02	Laboratory Control S	.25/50	1		08/23/11 01:44
283	T2.082311.014746	WG373526-03	Laboratory Control S	.25/50	1		08/23/11 01:47
284	T2.082311.015102	L11080579-06	GT110027	.253/50	1		08/23/11 01:51
285	T2.082311.015426	L11080579-05	GT110026	.259/50	1		08/23/11 01:54
286	T2.082311.015750	WG373851-01	Post Digestion Spike		1	L11080579-05	08/23/11 01:57
287	T2.082311.020106	WG373851-02	Serial Dilution		5	L11080579-05	08/23/11 02:01
288	T2.082311.020435	WG373833-64	CCV		1		08/23/11 02:04
289	T2.082311.020746	WG373833-65	CCB		1		08/23/11 02:07
290	T2.082311.021117	WG373314-02	Method/Prep Blank	1/50	1		08/23/11 02:11
291	T2.082311.021444	WG373314-03	Laboratory Control S	1/50	1		08/23/11 02:14
292	T2.082311.021809	L11080453-39	12286-C0015	1.408/50	1		08/23/11 02:18
293	T2.082311.022124	WG373887-01	Post Digestion Spike		1	L11080453-39	08/23/11 02:21
294	T2.082311.022434	WG373887-02	Serial Dilution		5		08/23/11 02:24
295	T2.082311.022751	WG373887-02	Serial Dilution		25		08/23/11 02:27
296	T2.082311.023114	L11080453-40	12286-C0016	1.433/50	1		08/23/11 02:31
297	T2.082311.023428	L11080453-41	12286-C0017	1.343/50	1		08/23/11 02:34
298	T2.082311.023742	L11080453-42	12286-C0018	1.386/50	1		08/23/11 02:37
299	T2.082311.024057	L11080453-43	12286-C0019	1.43/50	1		08/23/11 02:40
300	T2.082311.024423	WG373833-66	CCV		1		08/23/11 02:44
301	T2.082311.024735	WG373833-67	CCB		1		08/23/11 02:47
302	T2.082311.025108	L11080453-44	12286-C0020	1.397/50	1		08/23/11 02:51
303	T2.082311.025423	L11080453-45	12286-C0021	1.466/50	1		08/23/11 02:54
304	T2.082311.025737	L11080453-46	12286-C0022	1.338/50	1		08/23/11 02:57
305	T2.082311.030051	L11080453-47	12286-C0023	1.352/50	1		08/23/11 03:00
306	T2.082311.030406	L11080453-48	12286-C0024	1.382/50	1		08/23/11 03:04

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 082211T2.1
 Analyst1: KHR Analyst2: PDM
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 38620

Calibration Std: STD46671 ICV Std: STD46598 Post Spike: STD45109
 ICSA: STD47174 ICSAB: STD46820 Int. Std: STD46827
 CCV: STD46918 LLCCV: _____

373729,373582,373583,373116,373355,373849,373847,373874

Workgroups:

Comments: Additional Workgroups: 373588,373585,373500,373851,373887,373888

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
307	T2.082311.030720	L11080454-01	12286-C0025	1.358/50	1		08/23/11 03:07
308	T2.082311.031034	L11080454-02	12286-C0026	1.359/50	1		08/23/11 03:10
309	T2.082311.031349	L11080454-03	12286-C0027	1.368/50	1		08/23/11 03:13
310	T2.082311.031703	L11080454-04	12286-C0028	1.356/50	1		08/23/11 03:17
311	T2.082311.032016	L11080454-05	12286-C0029	1.485/50	1		08/23/11 03:20
312	T2.082311.032340	WG373833-68	CCV		1		08/23/11 03:23
313	T2.082311.032653	WG373833-69	CCB		1		08/23/11 03:26
314	T2.082311.033026	L11080454-06	12286-C0030	1.341/50	1		08/23/11 03:30
315	T2.082311.033339	L11080454-07	12286-C0031	1.32/50	1		08/23/11 03:33
316	T2.082311.033654	L11080454-08	12286-C0032	1.407/50	1		08/23/11 03:36
317	T2.082311.034008	L11080454-09	12286-C0033	1.365/50	1		08/23/11 03:40
318	T2.082311.034323	WG373314-01	Reference Sample		1	L11080454-10	08/23/11 03:43
319	T2.082311.034637	WG373314-04	Matrix Spike	1.426/50	1	L11080454-10	08/23/11 03:46
320	T2.082311.034951	WG373314-05	Matrix Spike Duplica	1.426/50	1	L11080454-10	08/23/11 03:49
321	T2.082311.035310	WG373833-70	CCV		1		08/23/11 03:53
322	T2.082311.035623	WG373833-71	CCB		1		08/23/11 03:56
323	T2.082311.035955	WG373315-02	Method/Prep Blank	1/50	1		08/23/11 03:59
324	T2.082311.040323	WG373315-03	Laboratory Control S	1/50	1		08/23/11 04:03
325	T2.082311.040649	L11080454-11	12286-C0035	1.42/50	1		08/23/11 04:06
326	T2.082311.041002	WG373888-01	Post Digestion Spike		1	L11080454-11	08/23/11 04:10
327	T2.082311.041312	WG373888-02	Serial Dilution		5	L11080454-11	08/23/11 04:13
328	T2.082311.041628	WG373888-02	Serial Dilution		25	L11080454-11	08/23/11 04:16
329	T2.082311.041949	L11080454-12	12286-C0036	1.36/50	1		08/23/11 04:19
330	T2.082311.042303	L11080454-13	12286-C0037	1.365/50	1		08/23/11 04:23
331	T2.082311.042617	L11080454-14	12286-C0038		1	WG373315-01	08/23/11 04:26
332	T2.082311.042932	L11080454-15	12286-C0038-MS	1.384/50	1	WG373315-04	08/23/11 04:29
333	T2.082311.043252	WG373833-72	CCV		1		08/23/11 04:32
334	T2.082311.043604	WG373833-73	CCB		1		08/23/11 04:36
335	T2.082311.043936	L11080454-16	12286-C0038-MSD	1.384/50	1	WG373315-05	08/23/11 04:39
336	T2.082311.044250	L11080454-17	12286-C0039	1.365/50	1		08/23/11 04:42
337	T2.082311.044604	L11080454-18	12286-C0040	1.392/50	1		08/23/11 04:46
338	T2.082311.044918	L11080454-19	12286-C0041	1.367/50	1		08/23/11 04:49
339	T2.082311.045231	L11080454-20	12286-C0042	1.391/50	1		08/23/11 04:52
340	T2.082311.045554	L11080454-21	12286-C0043	1.465/50	1		08/23/11 04:55

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 082211T2.1
 Analyst1: KHR Analyst2: PDM
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 38620

Calibration Std: STD46671 ICV Std: STD46598 Post Spike: STD45109
 ICSA: STD47174 ICSAB: STD46820 Int. Std: STD46827
 CCV: STD46918 LLCCV: _____

373729,373582,373583,373116,373355,373849,373847,373874

Workgroups:

Comments: Additional Workgroups: 373588, 373585, 373500, 373851, 373887, 373888

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
341	T2.082311.045916	L11080454-22	12286-C0044	1.376/50	1		08/23/11 04:59
342	T2.082311.050231	L11080454-23	12286-C0045	1.337/50	1		08/23/11 05:02
343	T2.082311.050544	L11080454-24	12286-C0046	1.322/50	1		08/23/11 05:05
344	T2.082311.050859	L11080454-25	12286-C0047	1.44/50	1		08/23/11 05:08
345	T2.082311.051231	WG373833-74	CCV		1		08/23/11 05:12
346	T2.082311.051543	WG373833-75	CCB		1		08/23/11 05:15
347	T2.082311.051917	L11080454-26	12286-C0048	1.362/50	1		08/23/11 05:19
348	T2.082311.052234	L11080454-27	12286-C0049	1.34/50	1		08/23/11 05:22
349	T2.082311.052547	L11080454-28	8368-C0001	1.362/50	1		08/23/11 05:25
350	T2.082311.052857	L11080454-29	8368-C0002	1.449/50	1		08/23/11 05:28
351	T2.082311.053207	L11080454-30	8650-C0001	1.378/50	1		08/23/11 05:32
352	T2.082311.053521	L11080454-31	8650-C0002	1.394/50	1		08/23/11 05:35
353	T2.082311.053835	L11080454-32	8650-C0003	1.341/50	1		08/23/11 05:38
354	T2.082311.054153	WG373833-76	CCV		1		08/23/11 05:41
355	T2.082311.054506	WG373833-77	CCB		1		08/23/11 05:45

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 082311T2.1
 Analyst1: JYH Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 38656

Calibration Std: STD46671 ICV Std: STD47184 Post Spike: STD45109
 ICSA: STD47174 ICSAB: STD47013 Int. Std: STD47185
 CCV: STD46918 LLCCV: _____

373587,373722,373969,373500,373851,373902,373850,373903

Workgroups:

Comments: Additional workgroup: 373936,373990,373992

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
1	T2.082311.083849	WG373942-01	Calibration Point		1		08/23/11 08:38
2	T2.082311.084218	WG373942-02	Calibration Point		1		08/23/11 08:42
3	T2.082311.084545	WG373942-03	Calibration Point		1		08/23/11 08:45
4	T2.082311.084911	WG373942-04	Calibration Point		1		08/23/11 08:49
5	T2.082311.085227	WG373942-05	Calibration Point		1		08/23/11 08:52
6	T2.082311.085543	WG373942-06	Initial Calibration Verification		1		08/23/11 08:55
7	T2.082311.085856	WG373942-07	Initial Calib Blank		1		08/23/11 08:58
8	T2.082311.090223	WG373942-08	Interference Check		1		08/23/11 09:02
9	T2.082311.090541	WG373942-09	Interference Check		1		08/23/11 09:05
10	T2.082311.090901	WG373942-10	CCV		1		08/23/11 09:09
11	T2.082311.091216	WG373942-11	CCB		1		08/23/11 09:12
12	T2.082311.091548	WG373007-02	Method/Prep Blank		1		08/23/11 09:15
13	T2.082311.091916	WG373007-03	Laboratory Control S		1		08/23/11 09:19
14	T2.082311.092230	WG373007-01	Reference Sample		100	L11080376-18	08/23/11 09:22
15	T2.082311.092556	WG373007-04	Matrix Spike		100	L11080376-18	08/23/11 09:25
16	T2.082311.092921	WG373007-05	Matrix Spike Duplica		100	L11080376-18	08/23/11 09:29
17	T2.082311.093247	L11080300-08	AOCD-SB04(0-2)07272011		100		08/23/11 09:32
18	T2.082311.093610	WG373240-01	Post Digestion Spike		100	L11080300-08	08/23/11 09:36
19	T2.082311.093924	WG373240-02	Serial Dilution		500	L11080300-08	08/23/11 09:39
20	T2.082311.094256	L11080376-04	0922-616		100		08/23/11 09:42
21	T2.082311.094621	L11080376-07	0922-629-2		100		08/23/11 09:46
22	T2.082311.094948	WG373942-12	CCV		1		08/23/11 09:49
23	T2.082311.095303	WG373942-13	CCB		1		08/23/11 09:53
24	T2.082311.095639	WG373007-01	Reference Sample		10	L11080376-18	08/23/11 09:56
25	T2.082311.100000	WG373007-04	Matrix Spike		10	L11080376-18	08/23/11 10:00
26	T2.082311.100316	WG373007-05	Matrix Spike Duplica		10	L11080376-18	08/23/11 10:03
27	T2.082311.100634	L11080376-07	0922-629-2		200		08/23/11 10:06
28	T2.082311.101002	WG373240-02	Serial Dilution		2500	L11080300-08	08/23/11 10:10
29	T2.082311.101335	WG373942-14	CCV		1		08/23/11 10:13
30	T2.082311.101651	WG373942-15	CCB		1		08/23/11 10:16
31	T2.082311.102022	WG373298-02	Method/Prep Blank	1/50	1		08/23/11 10:20
32	T2.082311.102349	WG373298-03	Laboratory Control S	1/50	1		08/23/11 10:23
33	T2.082311.102715	L11080451-47	10946-C0019	1.442/50	1		08/23/11 10:27
34	T2.082311.103029	L11080451-48	10946-C0020	1.341/50	1		08/23/11 10:30

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 082311T2.1
 Analyst1: JYH Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 38656

Calibration Std: STD46671 ICV Std: STD47184 Post Spike: STD45109
 ICSA: STD47174 ICSAB: STD47013 Int. Std: STD47185
 CCV: STD46918 LLCCV: _____

373587,373722,373969,373500,373851,373902,373850,373903

Workgroups:

Comments: Additional workgroup: 373936,373990,373992

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
35	T2.082311.103402	L11080452-01	10946-C0021	1.484/50	1		08/23/11 10:34
36	T2.082311.103716	WG373587-01	Post Digestion Spike		1	L11080452-01	08/23/11 10:37
37	T2.082311.104029	WG373587-02	Serial Dilution		5	L11080452-01	08/23/11 10:40
38	T2.082311.104346	WG373587-02	Serial Dilution		25	L11080452-01	08/23/11 10:43
39	T2.082311.104709	WG373298-01	Reference Sample		1	L11080452-02	08/23/11 10:47
40	T2.082311.105023	WG373298-04	Matrix Spike	1.475/50	1	L11080452-02	08/23/11 10:50
41	T2.082311.105347	WG373942-16	CCV		1		08/23/11 10:53
42	T2.082311.105704	WG373942-17	CCB		1		08/23/11 10:57
43	T2.082311.110038	WG373298-05	Matrix Spike Duplica	1.475/50	1	L11080452-02	08/23/11 11:00
44	T2.082311.110352	L11080452-05	10946-C0023	1.343/50	1		08/23/11 11:03
45	T2.082311.110706	L11080452-06	10946-C0024	1.33/50	1		08/23/11 11:07
46	T2.082311.111022	L11080452-07	10946-C0025	1.385/50	1		08/23/11 11:10
47	T2.082311.111336	L11080452-08	10946-C0026	1.308/50	1		08/23/11 11:13
48	T2.082311.111650	L11080452-09	10946-C0027	1.424/50	1		08/23/11 11:16
49	T2.082311.112004	L11080452-10	10946-C0028	1.371/50	1		08/23/11 11:20
50	T2.082311.112320	L11080452-11	10946-C0029	1.487/50	1		08/23/11 11:23
51	T2.082311.112635	L11080452-12	10946-C0030	1.432/50	1		08/23/11 11:26
52	T2.082311.112949	L11080452-13	10946-C0031	1.315/50	1		08/23/11 11:29
53	T2.082311.113311	WG373942-18	CCV		1		08/23/11 11:33
54	T2.082311.113629	WG373942-19	CCB		1		08/23/11 11:36
55	T2.082311.114000	L11080332-08	DE-18C-07252011	1.488/50	2		08/23/11 11:40
56	T2.082311.114317	WG373942-20	Interference Check		1		08/23/11 11:43
57	T2.082311.114637	WG373942-21	Interference Check		1		08/23/11 11:46
58	T2.082311.114957	L11080452-14	10946-C0032	1.364/50	1		08/23/11 11:49
59	T2.082311.115311	L11080452-15	10946-C0033	1.327/50	1		08/23/11 11:53
60	T2.082311.115625	L11080452-16	10946-C0034	1.444/50	1		08/23/11 11:56
61	T2.082311.115940	L11080452-17	10946-C0035	1.437/50	1		08/23/11 11:59
62	T2.082311.120302	L11080452-21	10946-C0037	1.468/50	1		08/23/11 12:03
63	T2.082311.120617	L11080452-22	10946-C0038	1.37/50	1		08/23/11 12:06
64	T2.082311.120934	L11080452-23	10946-C0039	1.338/50	1		08/23/11 12:09
65	T2.082311.121252	WG373942-22	CCV		1		08/23/11 12:12
66	T2.082311.121606	WG373942-23	CCB		1		08/23/11 12:16
67	T2.082311.121935	WG373307-02	Method/Prep Blank	1/50	1		08/23/11 12:19
68	T2.082311.122302	WG373307-03	Laboratory Control S	1/50	1		08/23/11 12:23

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 082311T2.1
 Analyst1: JYH Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 38656

Calibration Std: STD46671 ICV Std: STD47184 Post Spike: STD45109
 ICSA: STD47174 ICSAB: STD47013 Int. Std: STD47185
 CCV: STD46918 LLCCV: _____

373587,373722,373969,373500,373851,373902,373850,373903

Workgroups:

Comments: Additional workgroup: 373936,373990,373992

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
69	T2.082311.122627	L11080452-43	10983-C0002	1.46/50	1		08/23/11 12:26
70	T2.082311.122942	WG373722-01	Post Digestion Spike		1	L11080452-43	08/23/11 12:29
71	T2.082311.123254	WG373722-02	Serial Dilution		5	L11080452-43	08/23/11 12:32
72	T2.082311.123612	WG373722-02	Serial Dilution		25	L11080452-43	08/23/11 12:36
73	T2.082311.123936	L11080452-44	10983-C0003	1.328/50	1		08/23/11 12:39
74	T2.082311.124250	L11080452-45	10983-C0004	1.406/50	1		08/23/11 12:42
75	T2.082311.124606	L11080452-46	10983-C0005	1.472/50	1		08/23/11 12:46
76	T2.082311.124921	L11080452-47	10983-C0006	1.347/50	1		08/23/11 12:49
77	T2.082311.125237	WG373942-24	CCV		1		08/23/11 12:52
78	T2.082311.125552	WG373942-25	CCB		1		08/23/11 12:55
79	T2.082311.125924	L11080452-48	10983-C0007	1.354/50	1		08/23/11 12:59
80	T2.082311.130239	L11080453-01	10983-C0008	1.46/50	1		08/23/11 13:02
81	T2.082311.130554	L11080453-02	10983-C0009	1.42/50	1		08/23/11 13:05
82	T2.082311.130909	L11080453-03	10983-C0010	1.316/50	1		08/23/11 13:09
83	T2.082311.131224	L11080453-04	10983-C0011	1.333/50	1		08/23/11 13:12
84	T2.082311.131539	L11080453-05	10983-C0012	1.396/50	1		08/23/11 13:15
85	T2.082311.131854	L11080453-06	10983-C0013	1.447/50	1		08/23/11 13:18
86	T2.082311.132208	L11080453-07	10983-C0014	1.439/50	1		08/23/11 13:22
87	T2.082311.132525	WG373307-01	Reference Sample		1	L11080453-08	08/23/11 13:25
88	T2.082311.132841	WG373307-04	Matrix Spike	1.484/50	1	L11080453-08	08/23/11 13:28
89	T2.082311.133202	WG373942-26	CCV		1		08/23/11 13:32
90	T2.082311.133517	WG373942-27	CCB		1		08/23/11 13:35
91	T2.082311.133850	WG373307-05	Matrix Spike Duplica	1.484/50	1	L11080453-08	08/23/11 13:38
92	T2.082311.134202	L11080453-11	10983-C0016	1.383/50	1		08/23/11 13:42
93	T2.082311.135755	WG373692-02	Method/Prep Blank	1/50	1		08/23/11 13:57
94	T2.082311.140124	WG373692-03	Laboratory Control S	1/50	1		08/23/11 14:01
95	T2.082311.140440	WG373692-01	Reference Sample		1	L11080597-45	08/23/11 14:04
96	T2.082311.140759	WG373692-04	Matrix Spike	1.33/50	1	L11080597-45	08/23/11 14:07
97	T2.082311.141116	WG373692-05	Matrix Spike Duplica	1.33/50	1	L11080597-45	08/23/11 14:11
98	T2.082311.141433	L11080608-01	BOR	1.315/50	1		08/23/11 14:14
99	T2.082311.141745	WG373969-01	Post Digestion Spike		1	L11080608-01	08/23/11 14:17
100	T2.082311.142057	WG373969-02	Serial Dilution		5	L11080608-01	08/23/11 14:20
101	T2.082311.142424	WG373942-28	CCV		1		08/23/11 14:24
102	T2.082311.142741	WG373942-29	CCB		1		08/23/11 14:27

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 082311T2.1
 Analyst1: JYH Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 38656

Calibration Std: STD46671 ICV Std: STD47184 Post Spike: STD45109
 ICSA: STD47174 ICSAB: STD47013 Int. Std: STD47185
 CCV: STD46918 LLCCV: _____

373587,373722,373969,373500,373851,373902,373850,373903

Workgroups:

Comments: Additional workgroup: 373936,373990,373992

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
103	T2.082311.143110	WG373969-02	Serial Dilution		25	L11080608-01	08/23/11 14:31
104	T2.082311.143438	L11080453-12	10983-C0017	1.381/50	1		08/23/11 14:34
105	T2.082311.143758	L11080453-13	10983-C0018	1.331/50	1		08/23/11 14:37
106	T2.082311.144112	L11080453-14	10983-C0019	1.305/50	1		08/23/11 14:41
107	T2.082311.144435	L11080453-15	10983-C0020	1.357/50	1		08/23/11 14:44
108	T2.082311.144750	L11080453-16	10983-C0021	1.34/50	1		08/23/11 14:47
109	T2.082311.145117	L11080618-02	WS1-081711	1.335/50	1		08/23/11 14:51
110	T2.082311.145434	L11080618-03	WS2-081711	1.416/50	1		08/23/11 14:54
111	T2.082311.145755	WG373942-30	CCV		1		08/23/11 14:57
112	T2.082311.150111	WG373942-31	CCB		1		08/23/11 15:01
113	T2.082311.150443	L11080597-29	5386-C0488	1.415/50	1		08/23/11 15:04
114	T2.082311.150801	L11080597-30	5386-C0489	1.3/50	1		08/23/11 15:08
115	T2.082311.151120	L11080597-31	5386-C0490	1.313/50	1		08/23/11 15:11
116	T2.082311.151439	L11080597-32	5386-C0491	1.463/50	1		08/23/11 15:14
117	T2.082311.151759	L11080597-33	5386-C0492	1.398/50	1		08/23/11 15:17
118	T2.082311.152117	L11080597-37	5386-C0512	1.319/50	1		08/23/11 15:21
119	T2.082311.153249	L11080608-01	BOR	1.315/50	2		08/23/11 15:32
120	T2.082311.153605	WG373969-01	Post Digestion Spike		2	L11080608-01	08/23/11 15:36
121	T2.082311.153922	WG373969-02	Serial Dilution		10	L11080608-01	08/23/11 15:39
122	T2.082311.154248	WG373942-32	CCV		1		08/23/11 15:42
123	T2.082311.154559	WG373942-33	CCB		1		08/23/11 15:45
124	T2.082311.154933	WG373942-34	Interference Check		1		08/23/11 15:49
125	T2.082311.155253	WG373942-35	Interference Check		1		08/23/11 15:52
126	T2.082311.155613	L11080597-38	5386-C0513	1.309/50	1		08/23/11 15:56
127	T2.082311.155935	L11080597-39	5386-C0514	1.372/50	1		08/23/11 15:59
128	T2.082311.160250	L11080597-43	5386-C0516	1.332/50	1		08/23/11 16:02
129	T2.082311.160613	L11080597-44	5386-C0522	1.314/50	1		08/23/11 16:06
130	T2.082311.160932	L11080597-48	5386-C0524	1.346/50	1		08/23/11 16:09
131	T2.082311.161251	L11080598-01	5386-C0525	1.367/50	1		08/23/11 16:12
132	T2.082311.161611	L11080598-02	5386-C0526	1.332/50	1		08/23/11 16:16
133	T2.082311.161936	WG373942-36	CCV		1		08/23/11 16:19
134	T2.082311.162248	WG373942-37	CCB		1		08/23/11 16:22
135	T2.082311.162620	L11080598-03	5386-C0527	1.362/50	1		08/23/11 16:26
136	T2.082311.162939	L11080598-04	5386-C0528	1.317/50	1		08/23/11 16:29

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 082311T2.1
 Analyst1: JYH Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 38656

Calibration Std: STD46671 ICV Std: STD47184 Post Spike: STD45109
 ICSA: STD47174 ICSAB: STD47013 Int. Std: STD47185
 CCV: STD46918 LLCCV: _____

373587,373722,373969,373500,373851,373902,373850,373903

Workgroups:

Comments: Additional workgroup: 373936,373990,373992

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
137	T2.082311.163259	L11080598-05	5386-C0529	1.38/50	1		08/23/11 16:32
138	T2.082311.163618	L11080450-10	10936-C0016	1.485/50	1		08/23/11 16:36
139	T2.082311.163933	L11080450-11	10936-C0017	1.457/50	1		08/23/11 16:39
140	T2.082311.164304	L11080450-12	10936-C0018	1.337/50	1		08/23/11 16:43
141	T2.082311.164630	L11080450-13	10936-C0019	1.383/50	1		08/23/11 16:46
142	T2.082311.164951	WG373942-38	CCV		1		08/23/11 16:49
143	T2.082311.165303	WG373942-39	CCB		1		08/23/11 16:53
144	T2.082311.165636	WG373526-01	Method/Prep Blank	.25/50	1		08/23/11 16:56
145	T2.082311.170005	WG373526-02	Laboratory Control S	.25/50	1		08/23/11 17:00
146	T2.082311.170321	WG373526-03	Laboratory Control S	.25/50	1		08/23/11 17:03
147	T2.082311.170638	L11080579-06	GT110027	.253/50	1		08/23/11 17:06
148	T2.082311.171002	L11080579-05	GT110026	.259/50	1		08/23/11 17:10
149	T2.082311.171326	WG373851-01	Post Digestion Spike		1	L11080579-05	08/23/11 17:13
150	T2.082311.171643	WG373851-02	Serial Dilution		5	L11080579-05	08/23/11 17:16
151	T2.082311.172012	WG373942-40	CCV		1		08/23/11 17:20
152	T2.082311.172325	WG373942-41	CCB		1		08/23/11 17:23
153	T2.082311.172655	WG373440-02	Method/Prep Blank	1/50	1		08/23/11 17:26
154	T2.082311.173021	WG373440-03	Laboratory Control S	1/50	1		08/23/11 17:30
155	T2.082311.173347	L11080485-01	11653-C0021	1.012/50	5		08/23/11 17:33
156	T2.082311.173704	WG373902-01	Post Digestion Spike		5	L11080485-01	08/23/11 17:37
157	T2.082311.174017	WG373902-02	Serial Dilution		25	L11080485-01	08/23/11 17:40
158	T2.082311.174339	WG373902-02	Serial Dilution		125	L11080485-01	08/23/11 17:43
159	T2.082311.174704	L11080485-02	11653-C0023	1.016/50	5		08/23/11 17:47
160	T2.082311.175021	L11080485-03	11653-C0025	1.023/50	5		08/23/11 17:50
161	T2.082311.175338	L11080485-04	11653-C0027	1.024/50	5		08/23/11 17:53
162	T2.082311.175655	WG373440-01	Reference Sample		5	L11080485-05	08/23/11 17:56
163	T2.082311.180017	WG373942-42	CCV		1		08/23/11 18:00
164	T2.082311.180329	WG373942-43	CCB		1		08/23/11 18:03
165	T2.082311.180701	WG373440-04	Matrix Spike	1.018/50	5	L11080485-05	08/23/11 18:07
166	T2.082311.181017	WG373440-05	Matrix Spike Duplica	1.018/50	5	L11080485-05	08/23/11 18:10
167	T2.082311.181334	L11080485-08	11653-C0031	1.004/50	5		08/23/11 18:13
168	T2.082311.181650	L11080485-09	11653-C0033	1.005/50	5		08/23/11 18:16
169	T2.082311.182007	L11080485-10	11653-C0035	1.028/50	5		08/23/11 18:20
170	T2.082311.182324	L11080485-11	11653-C0037	1.014/50	5		08/23/11 18:23

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 082311T2.1
 Analyst1: JYH Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 38656

Calibration Std: STD46671 ICV Std: STD47184 Post Spike: STD45109
 ICSA: STD47174 ICSAB: STD47013 Int. Std: STD47185
 CCV: STD46918 LLCCV: _____

373587,373722,373969,373500,373851,373902,373850,373903

Workgroups:

Comments: Additional workgroup: 373936,373990,373992

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
171	T2.082311.182641	L11080485-12	11653-C0039	1.015/50	5		08/23/11 18:26
172	T2.082311.182959	L11080485-13	11653-C0040	1.026/50	5		08/23/11 18:29
173	T2.082311.183316	L11080485-14	11653-C0041	1.021/50	5		08/23/11 18:33
174	T2.082311.183633	L11080485-15	11653-C0043	1.018/50	5		08/23/11 18:36
175	T2.082311.183956	WG373942-44	CCV		1		08/23/11 18:39
176	T2.082311.184308	WG373942-45	CCB		1		08/23/11 18:43
177	T2.082311.184645	L11080485-16	11653-C0044	1.01/50	5		08/23/11 18:46
178	T2.082311.185002	L11080485-17	11653-C0045	1.009/50	5		08/23/11 18:50
179	T2.082311.185318	L11080501-18	5386-C0915	1.387/50	1		08/23/11 18:53
180	T2.082311.185632	L11080501-19	5386-C0939	1.333/50	1		08/23/11 18:56
181	T2.082311.185943	L11080501-20	5386-C0941	1.423/50	1		08/23/11 18:59
182	T2.082311.190256	L11080501-21	5386-C0943	1.311/50	1		08/23/11 19:02
183	T2.082311.190610	L11080501-22	5386-C0946	1.399/50	1		08/23/11 19:06
184	T2.082311.190931	WG373942-46	CCV		1		08/23/11 19:09
185	T2.082311.191244	WG373942-47	CCB		1		08/23/11 19:12
186	T2.082311.191619	WG373768-01	Method/Prep Blank	.25/50	1		08/23/11 19:16
187	T2.082311.191947	WG373768-02	Laboratory Control S	.25/50	1		08/23/11 19:19
188	T2.082311.192304	WG373768-03	Laboratory Control S	.25/50	1		08/23/11 19:23
189	T2.082311.192621	L11080639-04	24460 USED OIL	.253/50	1		08/23/11 19:26
190	T2.082311.192939	WG373850-01	Post Digestion Spike		1	L11080639-04	08/23/11 19:29
191	T2.082311.193252	WG373850-02	Serial Dilution		5	L11080639-04	08/23/11 19:32
192	T2.082311.193624	WG373942-48	CCV		1		08/23/11 19:36
193	T2.082311.193937	WG373942-49	CCB		1		08/23/11 19:39
194	T2.082311.194312	WG373330-02	Method/Prep Blank	1/50	1		08/23/11 19:43
195	T2.082311.194640	WG373330-03	Laboratory Control S	1/50	1		08/23/11 19:46
196	T2.082311.195006	L11080454-33	8650-C0004	1.339/50	1		08/23/11 19:50
197	T2.082311.195319	L11080500-01	5386-C0657	1.425/50	1		08/23/11 19:53
198	T2.082311.195637	WG373903-01	Post Digestion Spike		1	L11080500-01	08/23/11 19:56
199	T2.082311.195956	L11080500-01	5386-C0657		5		08/23/11 19:59
200	T2.082311.200310	WG373903-02	Serial Dilution		25	L11080500-01	08/23/11 20:03
201	T2.082311.200630	L11080500-02	5386-C0658	1.444/50	1		08/23/11 20:06
202	T2.082311.200948	L11080500-03	5386-C0659	1.371/50	1		08/23/11 20:09
203	T2.082311.201308	L11080500-04	5386-C0660	1.491/50	1		08/23/11 20:13
204	T2.082311.201636	WG373942-50	CCV		1		08/23/11 20:16

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 082311T2.1
 Analyst1: JYH Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 38656

Calibration Std: STD46671 ICV Std: STD47184 Post Spike: STD45109
 ICSA: STD47174 ICSAB: STD47013 Int. Std: STD47185
 CCV: STD46918 LLCCV: _____

373587,373722,373969,373500,373851,373902,373850,373903

Workgroups:

Comments: Additional workgroup: 373936,373990,373992

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
205	T2.082311.201953	WG373942-51	CCB		1		08/23/11 20:19
206	T2.082311.202326	L11080500-05	5386-C0661	1.403/50	1		08/23/11 20:23
207	T2.082311.202645	L11080500-06	5386-C0692	1.416/50	1		08/23/11 20:26
208	T2.082311.203005	L11080500-07	5386-C0693	1.328/50	1		08/23/11 20:30
209	T2.082311.203316	L11080500-08	5386-C0694	1.333/50	1		08/23/11 20:33
210	T2.082311.203635	L11080500-09	5386-C0695	1.373/50	1		08/23/11 20:36
211	T2.082311.203955	L11080500-10	5386-C0696	1.399/50	2		08/23/11 20:39
212	T2.082311.204316	L11080500-11	5386-C0697	1.316/50	1		08/23/11 20:43
213	T2.082311.204636	L11080500-12	5386-C0698	1.345/50	1		08/23/11 20:46
214	T2.082311.204947	L11080500-13	5386-C0699	1.357/50	1		08/23/11 20:49
215	T2.082311.205258	WG373330-01	Reference Sample		1	L11080500-14	08/23/11 20:52
216	T2.082311.205626	WG373942-52	CCV		1		08/23/11 20:56
217	T2.082311.205941	WG373942-53	CCB		1		08/23/11 20:59
218	T2.082311.210313	WG373330-04	Matrix Spike	1.432/50	1	L11080500-14	08/23/11 21:03
219	T2.082311.210633	WG373330-05	Matrix Spike Duplica	1.432/50	1	L11080500-14	08/23/11 21:06
220	T2.082311.210953	L11080500-17	5386-C0701	1.402/50	1		08/23/11 21:09
221	T2.082311.211313	L11080500-18	5386-C0737	1.303/50	1		08/23/11 21:13
222	T2.082311.211628	L11080500-19	5386-C0738	1.348/50	1		08/23/11 21:16
223	T2.082311.211940	L11080500-20	5386-C0739	1.484/50	1		08/23/11 21:19
224	T2.082311.212302	L11080500-21	5386-C0740	1.436/50	1		08/23/11 21:23
225	T2.082311.212624	WG373942-54	CCV		1		08/23/11 21:26
226	T2.082311.212940	WG373942-55	CCB		1		08/23/11 21:29
227	T2.082311.213311	WG373331-02	Method/Prep Blank	1/50	1		08/23/11 21:33
228	T2.082311.213639	WG373331-03	Laboratory Control S	1/50	1		08/23/11 21:36
229	T2.082311.214005	L11080500-22	5386-C0741	1.392/50	1		08/23/11 21:40
230	T2.082311.214327	WG373936-01	Post Digestion Spike		1	L11080500-22	08/23/11 21:43
231	T2.082311.214646	WG373936-02	Serial Dilution		5	L11080500-22	08/23/11 21:46
232	T2.082311.215003	WG373936-02	Serial Dilution		25	L11080500-22	08/23/11 21:50
233	T2.082311.215324	L11080500-23	5386-C0742	1.475/50	1		08/23/11 21:53
234	T2.082311.215638	L11080500-24	5386-C0743	1.315/50	1		08/23/11 21:56
235	T2.082311.215951	L11080500-25	5386-C0744	1.34/50	1		08/23/11 21:59
236	T2.082311.220304	L11080500-26	5386-C0745	1.364/50	1		08/23/11 22:03
237	T2.082311.220622	WG373942-56	CCV		1		08/23/11 22:06
238	T2.082311.220938	WG373942-57	CCB		1		08/23/11 22:09

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 082311T2.1
 Analyst1: JYH Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 38656

Calibration Std: STD46671 ICV Std: STD47184 Post Spike: STD45109
 ICSA: STD47174 ICSAB: STD47013 Int. Std: STD47185
 CCV: STD46918 LLCCV: _____

373587,373722,373969,373500,373851,373902,373850,373903

Workgroups:

Comments: Additional workgroup: 373936,373990,373992

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
239	T2.082311.221308	L11080500-27	5386-C0746	1.446/50	1		08/23/11 22:13
240	T2.082311.221629	L11080500-28	5386-C0782	1.425/50	1		08/23/11 22:16
241	T2.082311.221943	L11080500-29	5386-C0783	1.379/50	1		08/23/11 22:19
242	T2.082311.222259	L11080500-30	5386-C0784	1.476/50	1		08/23/11 22:22
243	T2.082311.222613	L11080500-31	5386-C0785	1.366/50	1		08/23/11 22:26
244	T2.082311.222926	L11080500-32	5386-C0786	1.363/50	1		08/23/11 22:29
245	T2.082311.223243	L11080500-33	5386-C0787	1.458/50	1		08/23/11 22:32
246	T2.082311.223558	L11080500-34	5386-C0788	1.348/50	1		08/23/11 22:35
247	T2.082311.223912	L11080500-35	5386-C0789	1.312/50	1		08/23/11 22:39
248	T2.082311.224226	L11080500-36	5386-C0790	1.327/50	1		08/23/11 22:42
249	T2.082311.224551	WG373942-58	CCV		1		08/23/11 22:45
250	T2.082311.224906	WG373942-59	CCB		1		08/23/11 22:49
251	T2.082311.225240	L11080500-37	5386-C0791	1.355/50	1		08/23/11 22:52
252	T2.082311.225555	WG373331-01	Reference Sample		1	L11080500-38	08/23/11 22:55
253	T2.082311.225909	WG373331-04	Matrix Spike	1.477/50	1	L11080500-38	08/23/11 22:59
254	T2.082311.230222	WG373331-05	Matrix Spike Duplica	1.477/50	1	L11080500-38	08/23/11 23:02
255	T2.082311.230535	L11080500-41	5386-C0793	1.384/50	1		08/23/11 23:05
256	T2.082311.230850	L11080500-42	5386-C0794	1.352/50	1		08/23/11 23:08
257	T2.082311.231206	L11080500-43	5386-C0795	1.344/50	1		08/23/11 23:12
258	T2.082311.231528	WG373942-60	CCV		1		08/23/11 23:15
259	T2.082311.231844	WG373942-61	CCB		1		08/23/11 23:18
260	T2.082311.232217	WG373336-02	Method/Prep Blank	1/50	1		08/23/11 23:22
261	T2.082311.232545	WG373336-03	Laboratory Control S	1/50	1		08/23/11 23:25
262	T2.082311.232911	L11080500-44	5386-C0796	1.381/50	1		08/23/11 23:29
263	T2.082311.233226	WG373990-01	Post Digestion Spike		1	L11080500-44	08/23/11 23:32
264	T2.082311.233537	WG373990-02	Serial Dilution		5	L11080500-44	08/23/11 23:35
265	T2.082311.233854	WG373990-02	Serial Dilution		25	L11080500-44	08/23/11 23:38
266	T2.082311.234218	L11080500-45	5386-C0832	1.379/50	1		08/23/11 23:42
267	T2.082311.234531	L11080500-46	5386-C0833	1.38/50	1		08/23/11 23:45
268	T2.082311.234852	L11080500-47	5386-C0834	1.356/50	1		08/23/11 23:48
269	T2.082311.235211	L11080500-48	5386-C0835	1.348/50	1		08/23/11 23:52
270	T2.082311.235534	WG373942-62	CCV		1		08/23/11 23:55
271	T2.082311.235849	WG373942-63	CCB		1		08/23/11 23:58
272	T2.082411.000223	L11080501-01	5386-C0836	1.323/50	1		08/24/11 00:02

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 082311T2.1
 Analyst1: JYH Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 38656

Calibration Std: STD46671 ICV Std: STD47184 Post Spike: STD45109
 ICSA: STD47174 ICSAB: STD47013 Int. Std: STD47185
 CCV: STD46918 LLCCV: _____

373587,373722,373969,373500,373851,373902,373850,373903

Workgroups:

Comments: Additional workgroup: 373936,373990,373992

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
273	T2.082411.000538	L11080501-02	5386-C0837	1.486/50	1		08/24/11 00:05
274	T2.082411.000853	L11080501-03	5386-C0838	1.326/50	1		08/24/11 00:08
275	T2.082411.001209	L11080501-04	5386-C0839	1.32/50	1		08/24/11 00:12
276	T2.082411.001523	L11080501-05	5386-C0840	1.466/50	1		08/24/11 00:15
277	T2.082411.001838	L11080501-06	5386-C0841	1.482/50	1		08/24/11 00:18
278	T2.082411.002153	L11080501-07	5386-C0842	1.398/50	1		08/24/11 00:21
279	T2.082411.002506	L11080501-08	5386-C0843	1.321/50	1		08/24/11 00:25
280	T2.082411.002820	L11080501-09	5386-C0844	1.39/50	1		08/24/11 00:28
281	T2.082411.003131	L11080501-10	5386-C0845	1.471/50	1		08/24/11 00:31
282	T2.082411.003450	WG373942-64	CCV		1		08/24/11 00:34
283	T2.082411.003806	WG373942-65	CCB		1		08/24/11 00:38
284	T2.082411.004138	L11080501-11	5386-C0846	1.493/50	1		08/24/11 00:41
285	T2.082411.004503	L11080501-12	5386-C0897	1.408/50	1		08/24/11 00:45
286	T2.082411.004822	L11080501-13	5386-C0900	1.369/50	1		08/24/11 00:48
287	T2.082411.005133	L11080501-14	5386-C0901	1.307/50	1		08/24/11 00:51
288	T2.082411.005446	WG373336-01	Reference Sample		1	L11080501-15	08/24/11 00:54
289	T2.082411.005800	WG373336-04	Matrix Spike	1.466/50	1	L11080501-15	08/24/11 00:58
290	T2.082411.010113	WG373336-05	Matrix Spike Duplica	1.466/50	1	L11080501-15	08/24/11 01:01
291	T2.082411.010431	WG373942-66	CCV		1		08/24/11 01:04
292	T2.082411.010746	WG373942-67	CCB		1		08/24/11 01:07
293	T2.082411.011115	WG373463-02	Method/Prep Blank	1/50	1		08/24/11 01:11
294	T2.082411.011444	WG373463-03	Laboratory Control S	1/50	1		08/24/11 01:14
295	T2.082411.011810	L11080537-17	5386-C0648	1.367/50	1		08/24/11 01:18
296	T2.082411.012130	WG373992-01	Post Digestion Spike		1	L11080537-17	08/24/11 01:21
297	T2.082411.012449	WG373992-02	Serial Dilution		5	L11080537-17	08/24/11 01:24
298	T2.082411.012805	WG373992-02	Serial Dilution		25	L11080537-17	08/24/11 01:28
299	T2.082411.013126	L11080537-18	5386-C0649	1.34/50	1		08/24/11 01:31
300	T2.082411.013440	L11080537-19	5386-C0650	1.354/50	1		08/24/11 01:34
301	T2.082411.013755	L11080537-20	5386-C0651	1.458/50	1		08/24/11 01:37
302	T2.082411.014111	L11080537-21	5386-C0682	1.424/50	1		08/24/11 01:41
303	T2.082411.014435	WG373942-68	CCV		1		08/24/11 01:44
304	T2.082411.014751	WG373942-69	CCB		1		08/24/11 01:47
305	T2.082411.015122	L11080537-22	5386-C0683	1.344/50	1		08/24/11 01:51
306	T2.082411.015442	L11080537-23	5386-C0684	1.448/50	1		08/24/11 01:54

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Microbac Laboratories Inc.

Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 082311T2.1
 Analyst1: JYH Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 38656

Calibration Std: STD46671 ICV Std: STD47184 Post Spike: STD45109
 ICSA: STD47174 ICSAB: STD47013 Int. Std: STD47185
 CCV: STD46918 LLCCV: _____

373587,373722,373969,373500,373851,373902,373850,373903

Workgroups:

Comments: Additional workgroup: 373936,373990,373992

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
307	T2.082411.015802	L11080537-24	5386-C0685	1.386/50	1		08/24/11 01:58
308	T2.082411.020123	L11080537-25	5386-C0686	1.366/50	1		08/24/11 02:01
309	T2.082411.020441	L11080537-26	5386-C0717	1.413/50	1		08/24/11 02:04
310	T2.082411.020802	L11080537-27	5386-C0718	1.489/50	1		08/24/11 02:08
311	T2.082411.021124	L11080537-28	5386-C0719	1.463/50	1		08/24/11 02:11
312	T2.082411.021439	L11080537-29	5386-C0720	1.465/50	1		08/24/11 02:14
313	T2.082411.021752	L11080537-30	5386-C0721	1.425/50	1		08/24/11 02:17
314	T2.082411.022107	L11080537-31	5386-C0757	1.4/50	2		08/24/11 02:21
315	T2.082411.022420	WG373942-70	CCV		1		08/24/11 02:24
316	T2.082411.022736	WG373942-71	CCB		1		08/24/11 02:27
317	T2.082411.023109	L11080537-32	5386-C0758	1.399/50	2		08/24/11 02:31
318	T2.082411.023421	L11080537-33	5386-C0759	1.348/50	2		08/24/11 02:34
319	T2.082411.023741	L11080537-34	5386-C0760	1.375/50	2		08/24/11 02:37
320	T2.082411.024058	L11080537-35	5386-C0761	1.35/50	2		08/24/11 02:40
321	T2.082411.024409	WG373463-01	Reference Sample		2	L11080537-36	08/24/11 02:44
322	T2.082411.024725	WG373463-04	Matrix Spike	1.339/50	2	L11080537-36	08/24/11 02:47
323	T2.082411.025037	WG373463-05	Matrix Spike Duplica	1.339/50	2	L11080537-36	08/24/11 02:50
324	T2.082411.025401	WG373942-72	CCV		1		08/24/11 02:54
325	T2.082411.025717	WG373942-73	CCB		1		08/24/11 02:57

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 082411T2.1
 Analyst1: JYH Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 38675

Calibration Std: STD46665 ICV Std: STD46666 Post Spike: STD45109
 ICSA: STD47174 ICSAB: STD47013 Int. Std: STD47185
 CCV: STD46900 LLCCV: _____

373583,374019,374020,373990,374053,374054,374055,374056

Workgroups:

Comments: Additional workgroup: 374090,374091,374092,374094

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
1	T2.082411.090326	WG374103-01	Calibration Point		1		08/24/11 09:03
2	T2.082411.090655	WG374103-02	Calibration Point		1		08/24/11 09:06
3	T2.082411.091023	WG374103-03	Calibration Point		1		08/24/11 09:10
4	T2.082411.091351	WG374103-04	Calibration Point		1		08/24/11 09:13
5	T2.082411.091705	WG374103-05	Calibration Point		1		08/24/11 09:17
6	T2.082411.092022	WG374103-06	Initial Calibration Verification		1		08/24/11 09:20
7	T2.082411.092337	WG374103-07	Initial Calib Blank		1		08/24/11 09:23
8	T2.082411.092749	WG374103-08	Initial Calibration Verification		1		08/24/11 09:27
9	T2.082411.093102	WG374103-09	Initial Calib Blank		1		08/24/11 09:31
10	T2.082411.093430	WG374103-10	Interference Check		1		08/24/11 09:34
11	T2.082411.093750	WG374103-11	Interference Check		1		08/24/11 09:37
12	T2.082411.094112	WG374103-12	CCV		1		08/24/11 09:41
13	T2.082411.094425	WG374103-13	CCB		1		08/24/11 09:44
14	T2.082411.094758	WG373200-02	Method/Prep Blank	1/50	1		08/24/11 09:47
15	T2.082411.095127	WG373200-03	Laboratory Control S	1/50	1		08/24/11 09:51
16	T2.082411.095441	L11080002-05	BRENDA/ERIN L	1/50	1		08/24/11 09:54
17	T2.082411.095755	L11080002-06	BRENDA/ERIN L	1/50	1		08/24/11 09:57
18	T2.082411.100554	WG374103-14	CCV		1		08/24/11 10:05
19	T2.082411.101130	L11080002-08	BRENDA/ERIN L	1/50	1		08/24/11 10:11
20	T2.082411.101443	WG373462-02	Method/Prep Blank	1/50	1		08/24/11 10:14
21	T2.082411.101811	WG373462-03	Laboratory Control S	1/50	1		08/24/11 10:18
22	T2.082411.102126	L11080537-01	5386-C0517	1.406/50	1		08/24/11 10:21
23	T2.082411.102450	WG374103-15	CCV		1		08/24/11 10:24
24	T2.082411.102803	WG374103-16	CCB		1		08/24/11 10:28
25	T2.082411.103135	WG374019-01	Post Digestion Spike		1	L11080537-01	08/24/11 10:31
26	T2.082411.103454	WG374019-02	Serial Dilution		5	L11080537-01	08/24/11 10:34
27	T2.082411.103809	WG374019-02	Serial Dilution		25	L11080537-01	08/24/11 10:38
28	T2.082411.104130	L11080537-02	5386-C0518	1.369/50	1		08/24/11 10:41
29	T2.082411.104450	L11080537-03	5386-C0519	1.341/50	1		08/24/11 10:44
30	T2.082411.104811	L11080537-04	5386-C0520	1.327/50	1		08/24/11 10:48
31	T2.082411.105132	L11080537-05	5386-C0521	1.347/50	1		08/24/11 10:51
32	T2.082411.105447	L11080537-06	5386-C0602	1.31/50	1		08/24/11 10:54
33	T2.082411.105758	L11080537-07	5386-C0603	1.371/50	1		08/24/11 10:57
34	T2.082411.110111	L11080537-08	5386-C0604	1.433/50	1		08/24/11 11:01

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 082411T2.1
 Analyst1: JYH Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 38675

Calibration Std: STD46665 ICV Std: STD46666 Post Spike: STD45109
 ICSA: STD47174 ICSAB: STD47013 Int. Std: STD47185
 CCV: STD46900 LLCCV: _____

373583,374019,374020,373990,374053,374054,374055,374056

Workgroups:

Comments: Additional workgroup: 374090,374091,374092,374094

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
35	T2.082411.110432	WG374103-17	CCV		1		08/24/11 11:04
36	T2.082411.110746	WG374103-18	CCB		1		08/24/11 11:07
37	T2.082411.111123	L11080537-09	5386-C0605	1.392/50	1		08/24/11 11:11
38	T2.082411.111443	L11080537-10	5386-C0606	1.376/50	1		08/24/11 11:14
39	T2.082411.111804	L11080537-11	5386-C0642	1.426/50	1		08/24/11 11:18
40	T2.082411.112127	L11080537-12	5386-C0643	1.414/50	1		08/24/11 11:21
41	T2.082411.112439	L11080537-13	5386-C0644	1.408/50	1		08/24/11 11:24
42	T2.082411.112753	L11080537-14	5386-C0645	1.435/50	1		08/24/11 11:27
43	T2.082411.113105	L11080537-15	5386-C0646	1.479/50	1		08/24/11 11:31
44	T2.082411.113423	WG373462-01	Reference Sample		1	L11080537-16	08/24/11 11:34
45	T2.082411.113742	WG373462-04	Matrix Spike	1.461/50	1	L11080537-16	08/24/11 11:37
46	T2.082411.114102	WG373462-05	Matrix Spike Duplica	1.461/50	1	L11080537-16	08/24/11 11:41
47	T2.082411.114426	WG374103-19	CCV		1		08/24/11 11:44
48	T2.082411.114739	WG374103-20	CCB		1		08/24/11 11:47
49	T2.082411.115114	WG373559-02	Method/Prep Blank	1/50	1		08/24/11 11:51
50	T2.082411.115443	WG373559-03	Laboratory Control S	1/50	1		08/24/11 11:54
51	T2.082411.115810	L11080560-31	10920-C0021	1.309/50	1		08/24/11 11:58
52	T2.082411.120125	WG374020-01	Post Digestion Spike		1	L11080560-31	08/24/11 12:01
53	T2.082411.120437	WG374020-02	Serial Dilution		5	L11080560-31	08/24/11 12:04
54	T2.082411.120755	WG374020-02	Serial Dilution		25	L11080560-31	08/24/11 12:07
55	T2.082411.121118	L11080560-32	10920-C0022	1.321/50	1		08/24/11 12:11
56	T2.082411.121434	L11080560-33	10920-C0023	1.31/50	1		08/24/11 12:14
57	T2.082411.121751	L11080560-34	10920-C0024	1.473/50	1		08/24/11 12:17
58	T2.082411.122113	WG374103-21	CCV		1		08/24/11 12:21
59	T2.082411.122426	WG374103-22	CCB		1		08/24/11 12:24
60	T2.082411.122801	L11080560-35	10920-C0025	1.322/50	1		08/24/11 12:28
61	T2.082411.123117	L11080560-36	10920-C0026	1.366/50	1		08/24/11 12:31
62	T2.082411.123433	L11080560-37	10920-C0027	1.358/50	1		08/24/11 12:34
63	T2.082411.123756	L11080560-38	10920-C0028	1.36/50	1		08/24/11 12:37
64	T2.082411.124110	L11080560-39	10920-C0029	1.341/50	1		08/24/11 12:41
65	T2.082411.124441	L11080560-40	10920-C0030	1.31/50	1		08/24/11 12:44
66	T2.082411.124756	L11080560-41	10920-C0031	1.461/50	1		08/24/11 12:47
67	T2.082411.125128	L11080560-42	10920-C0032	1.466/50	1		08/24/11 12:51
68	T2.082411.125444	L11080560-43	10920-C0033	1.371/50	1		08/24/11 12:54

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 082411T2.1
 Analyst1: JYH Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 38675

Calibration Std: STD46665 ICV Std: STD46666 Post Spike: STD45109
 ICSA: STD47174 ICSAB: STD47013 Int. Std: STD47185
 CCV: STD46900 LLCCV: _____

373583,374019,374020,373990,374053,374054,374055,374056

Workgroups:

Comments: Additional workgroup: 374090,374091,374092,374094

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
69	T2.082411.125816	L11080560-44	10920-C0034	1.343/50	1		08/24/11 12:58
70	T2.082411.130137	WG374103-23	CCV		1		08/24/11 13:01
71	T2.082411.130450	WG374103-24	CCB		1		08/24/11 13:04
72	T2.082411.130828	SPIKE	SPIKE		100		08/24/11 13:08
73	T2.082411.131159	L11080560-45	10920-C0035	1.455/50	1		08/24/11 13:11
74	T2.082411.131515	L11080560-46	10920-C0036	1.405/50	1		08/24/11 13:15
75	T2.082411.131828	L11080560-47	10920-C0037	1.315/50	1		08/24/11 13:18
76	T2.082411.132159	L11080560-48	10920-C0038	1.345/50	1		08/24/11 13:21
77	T2.082411.132514	L11080561-01	10920-G0001	1.347/50	1		08/24/11 13:25
78	T2.082411.132829	WG373559-01	Reference Sample		1	L11080561-02	08/24/11 13:28
79	T2.082411.133144	WG373559-04	Matrix Spike	1.366/50	1	L11080561-02	08/24/11 13:31
80	T2.082411.133500	WG373559-05	Matrix Spike Duplica	1.366/50	1	L11080561-02	08/24/11 13:35
81	T2.082411.133821	L11080500-48	5386-C0835	1.348/50	2		08/24/11 13:38
82	T2.082411.134142	WG374103-25	CCV		1		08/24/11 13:41
83	T2.082411.134455	WG374103-26	CCB		1		08/24/11 13:44
84	T2.082411.134826	WG373563-02	Method/Prep Blank	1/50	1		08/24/11 13:48
85	T2.082411.135155	WG373563-03	Laboratory Control S	1/50	1		08/24/11 13:51
86	T2.082411.135521	L11080561-03	10943-C0001	1.362/50	1		08/24/11 13:55
87	T2.082411.135835	WG374053-01	Post Digestion Spike		1	L11080561-03	08/24/11 13:58
88	T2.082411.140147	WG374053-02	Serial Dilution		5	L11080561-03	08/24/11 14:01
89	T2.082411.140504	WG374053-02	Serial Dilution		25	L11080561-03	08/24/11 14:05
90	T2.082411.140829	L11080561-04	10943-C0002	1.384/50	1		08/24/11 14:08
91	T2.082411.141146	L11080561-05	10943-C0003	1.427/50	1		08/24/11 14:11
92	T2.082411.141500	WG373563-01	Reference Sample		1	L11080561-06	08/24/11 14:15
93	T2.082411.141814	WG373563-04	Matrix Spike	1.375/50	1	L11080561-06	08/24/11 14:18
94	T2.082411.142136	WG374103-27	CCV		1		08/24/11 14:21
95	T2.082411.142451	WG374103-28	CCB		1		08/24/11 14:24
96	T2.082411.142826	WG373563-05	Matrix Spike Duplica	1.375/50	1	L11080561-06	08/24/11 14:28
97	T2.082411.143141	L11080561-09	10943-C0005	1.321/50	1		08/24/11 14:31
98	T2.082411.143456	L11080561-10	10943-C0006	1.314/50	1		08/24/11 14:34
99	T2.082411.143819	L11080561-11	10943-C0007	1.304/50	1		08/24/11 14:38
100	T2.082411.144135	L11080561-12	10943-C0008	1.388/50	1		08/24/11 14:41
101	T2.082411.144450	L11080561-13	10943-C0009	1.322/50	1		08/24/11 14:44
102	T2.082411.144806	L11080561-14	10943-C0010	1.36/50	1		08/24/11 14:48

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 082411T2.1
 Analyst1: JYH Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 38675

Calibration Std: STD46665 ICV Std: STD46666 Post Spike: STD45109
 ICSA: STD47174 ICSAB: STD47013 Int. Std: STD47185
 CCV: STD46900 LLCCV: _____

373583,374019,374020,373990,374053,374054,374055,374056

Workgroups:

Comments: Additional workgroup: 374090,374091,374092,374094

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
103	T2.082411.145121	L11080561-15	10943-C0011	1.324/50	1		08/24/11 14:51
104	T2.082411.145438	L11080561-16	10943-C0012	1.467/50	1		08/24/11 14:54
105	T2.082411.145754	L11080561-17	10943-C0013	1.485/50	1		08/24/11 14:57
106	T2.082411.150116	WG374103-29	CCV		1		08/24/11 15:01
107	T2.082411.150433	WG374103-30	CCB		1		08/24/11 15:04
108	T2.082411.150806	L11080561-18	10943-C0014	1.307/50	1		08/24/11 15:08
109	T2.082411.151121	L11080561-19	10943-C0015	1.309/50	1		08/24/11 15:11
110	T2.082411.151437	L11080561-20	10943-C0016	1.413/50	1		08/24/11 15:14
111	T2.082411.151753	L11080561-21	10943-C0017	1.363/50	1		08/24/11 15:17
112	T2.082411.152109	L11080561-22	10943-C0018	1.381/50	1		08/24/11 15:21
113	T2.082411.152432	L11080561-23	10943-C0019	1.317/50	1		08/24/11 15:24
114	T2.082411.152748	L11080561-24	10943-C0020	1.352/50	1		08/24/11 15:27
115	T2.082411.153108	WG374103-31	CCV		1		08/24/11 15:31
116	T2.082411.153424	WG374103-32	CCB		1		08/24/11 15:34
117	T2.082411.153756	WG373571-02	Method/Prep Blank	1/50	1		08/24/11 15:37
118	T2.082411.154125	WG373571-03	Laboratory Control S	1/50	1		08/24/11 15:41
119	T2.082411.154452	L11080561-25	10943-C0021	1.409/50	1		08/24/11 15:44
120	T2.082411.154808	WG374054-01	Post Digestion Spike		1	L11080561-25	08/24/11 15:48
121	T2.082411.155122	WG374054-02	Serial Dilution		5	L11080561-25	08/24/11 15:51
122	T2.082411.155441	WG374054-02	Serial Dilution		25	L11080561-25	08/24/11 15:54
123	T2.082411.155805	L11080561-26	10943-C0022	1.37/50	1		08/24/11 15:58
124	T2.082411.160121	L11080561-27	10943-C0023	1.424/50	1		08/24/11 16:01
125	T2.082411.160436	L11080561-28	10943-C0024	1.365/50	1		08/24/11 16:04
126	T2.082411.160751	L11080561-29	10943-C0025	1.463/50	1		08/24/11 16:07
127	T2.082411.161107	WG374103-33	CCV		1		08/24/11 16:11
128	T2.082411.161423	WG374103-34	CCB		1		08/24/11 16:14
129	T2.082411.161755	WG373571-01	Reference Sample		1	L11080561-30	08/24/11 16:17
130	T2.082411.162109	WG373571-04	Matrix Spike	1.464/50	1	L11080561-30	08/24/11 16:21
131	T2.082411.162424	WG373571-05	Matrix Spike Duplica	1.464/50	1	L11080561-30	08/24/11 16:24
132	T2.082411.162739	L11080561-33	10943-C0027	1.431/50	1		08/24/11 16:27
133	T2.082411.163054	L11080561-34	10943-C0028	1.334/50	1		08/24/11 16:30
134	T2.082411.163409	L11080561-35	10943-C0029	1.435/50	1		08/24/11 16:34
135	T2.082411.163724	L11080561-36	10943-C0030	1.39/50	1		08/24/11 16:37
136	T2.082411.164040	L11080561-37	10943-C0031	1.365/50	1		08/24/11 16:40

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 082411T2.1
 Analyst1: JYH Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 38675

Calibration Std: STD46665 ICV Std: STD46666 Post Spike: STD45109
 ICSA: STD47174 ICSAB: STD47013 Int. Std: STD47185
 CCV: STD46900 LLCCV: _____

373583,374019,374020,373990,374053,374054,374055,374056

Workgroups:

Comments: Additional workgroup: 374090,374091,374092,374094

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
137	T2.082411.164402	L11080561-38	10943-C0032	1.305/50	1		08/24/11 16:44
138	T2.082411.164718	L11080561-39	10943-C0034	1.397/50	1		08/24/11 16:47
139	T2.082411.165039	WG374103-35	CCV		1		08/24/11 16:50
140	T2.082411.165355	WG374103-36	CCB		1		08/24/11 16:53
141	T2.082411.165728	L11080561-40	10943-C0035	1.349/50	1		08/24/11 16:57
142	T2.082411.170052	L11080561-41	10943-C0036	1.364/50	1		08/24/11 17:00
143	T2.082411.170414	L11080561-42	10943-C0037	1.36/50	1		08/24/11 17:04
144	T2.082411.170729	L11080561-43	10943-C0038	1.365/50	1		08/24/11 17:07
145	T2.082411.171045	L11080561-44	10943-C0039	1.34/50	1		08/24/11 17:10
146	T2.082411.171407	L11080561-45	10943-C0040	1.419/50	1		08/24/11 17:14
147	T2.082411.171722	L11080561-46	10943-C0041	1.348/50	1		08/24/11 17:17
148	T2.082411.172041	WG374103-37	CCV		1		08/24/11 17:20
149	T2.082411.172357	WG374103-38	CCB		1		08/24/11 17:23
150	T2.082411.172730	WG373572-02	Method/Prep Blank	1/50	1		08/24/11 17:27
151	T2.082411.173059	WG373572-03	Laboratory Control S	1/50	1		08/24/11 17:30
152	T2.082411.173425	L11080562-21	10982-C0012	1.371/50	1		08/24/11 17:34
153	T2.082411.173748	WG374055-01	Post Digestion Spike		1	L11080562-21	08/24/11 17:37
154	T2.082411.174108	WG374055-02	Serial Dilution		5	L11080562-21	08/24/11 17:41
155	T2.082411.174425	WG374055-02	Serial Dilution		25	L11080562-21	08/24/11 17:44
156	T2.082411.174749	L11080562-22	10982-C0013	1.389/50	1		08/24/11 17:47
157	T2.082411.175107	L11080562-23	10982-C0014	1.334/50	1		08/24/11 17:51
158	T2.082411.175425	L11080562-24	10982-C0015	1.302/50	1		08/24/11 17:54
159	T2.082411.175741	L11080562-25	10982-C0016	1.345/50	1		08/24/11 17:57
160	T2.082411.180106	WG374103-39	CCV		1		08/24/11 18:01
161	T2.082411.180422	WG374103-40	CCB		1		08/24/11 18:04
162	T2.082411.180756	L11080562-26	10982-C0017	1.466/50	1		08/24/11 18:07
163	T2.082411.181110	L11080562-27	10982-C0018	1.334/50	1		08/24/11 18:11
164	T2.082411.181426	L11080562-28	10982-C0019	1.329/50	1		08/24/11 18:14
165	T2.082411.181740	L11080562-29	10982-C0020	1.311/50	1		08/24/11 18:17
166	T2.082411.182056	L11080562-30	10982-C0021	1.37/50	1		08/24/11 18:20
167	T2.082411.182429	L11080562-31	10982-C0022	1.317/50	1		08/24/11 18:24
168	T2.082411.182744	L11080562-32	10982-C0023	1.374/50	1		08/24/11 18:27
169	T2.082411.183107	L11080562-33	10982-C0024	1.483/50	1		08/24/11 18:31
170	T2.082411.183420	L11080562-34	10982-C0025	1.326/50	1		08/24/11 18:34

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 082411T2.1
 Analyst1: JYH Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 38675

Calibration Std: STD46665 ICV Std: STD46666 Post Spike: STD45109
 ICSA: STD47174 ICSAB: STD47013 Int. Std: STD47185
 CCV: STD46900 LLCCV: _____

373583,374019,374020,373990,374053,374054,374055,374056

Workgroups:

Comments: Additional workgroup: 374090,374091,374092,374094

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
171	T2.082411.183736	L11080562-35	10982-C0026	1.351/50	1		08/24/11 18:37
172	T2.082411.184117	WG374103-41	CCV		1		08/24/11 18:41
173	T2.082411.184433	WG374103-42	CCB		1		08/24/11 18:44
174	T2.082411.184806	L11080562-36	10982-C0027	1.319/50	1		08/24/11 18:48
175	T2.082411.185121	L11080562-37	10982-G0001	1.35/50	1		08/24/11 18:51
176	T2.082411.185454	L11080562-38	10982-G0002	1.319/50	1		08/24/11 18:54
177	T2.082411.185828	L11080562-39	10985-C0001	1.317/50	1		08/24/11 18:58
178	T2.082411.190142	WG373572-01	Reference Sample		1	L11080562-40	08/24/11 19:01
179	T2.082411.190501	WG373572-04	Matrix Spike	1.344/50	1	L11080562-40	08/24/11 19:05
180	T2.082411.190824	WG373572-05	Matrix Spike Duplica	1.344/50	1	L11080562-40	08/24/11 19:08
181	T2.082411.191144	WG374103-43	CCV		1		08/24/11 19:11
182	T2.082411.191459	WG374103-44	CCB		1		08/24/11 19:14
183	T2.082411.191832	WG373568-02	Method/Prep Blank	1/50	1		08/24/11 19:18
184	T2.082411.192200	WG373568-03	Laboratory Control S	1/50	1		08/24/11 19:22
185	T2.082411.192526	L11080561-47	10943-C0042	1.329/50	1		08/24/11 19:25
186	T2.082411.192842	WG374056-01	Post Digestion Spike		1	L11080561-47	08/24/11 19:28
187	T2.082411.193155	WG374056-02	Serial Dilution		5	L11080561-47	08/24/11 19:31
188	T2.082411.193514	WG374056-02	Serial Dilution		25	L11080561-47	08/24/11 19:35
189	T2.082411.193838	L11080561-48	10943-C0043	1.398/50	1		08/24/11 19:38
190	T2.082411.194154	L11080562-01	10943-C0044	1.42/50	1		08/24/11 19:41
191	T2.082411.194509	L11080562-02	10943-C0045	1.357/50	1		08/24/11 19:45
192	T2.082411.194825	L11080562-03	10943-C0046	1.316/50	1		08/24/11 19:48
193	T2.082411.195153	WG374103-45	CCV		1		08/24/11 19:51
194	T2.082411.195509	WG374103-46	CCB		1		08/24/11 19:55
195	T2.082411.195840	L11080562-04	10943-C0047	1.401/50	1		08/24/11 19:58
196	T2.082411.200203	L11080562-05	10943-C0048	1.312/50	1		08/24/11 20:02
197	T2.082411.200519	L11080562-06	10943-G0001	1.471/50	1		08/24/11 20:05
198	T2.082411.200834	L11080562-07	10943-G0002	1.462/50	1		08/24/11 20:08
199	T2.082411.201151	L11080562-08	10982-C0001	1.412/50	1		08/24/11 20:11
200	T2.082411.201524	L11080562-09	10982-C0002	1.313/50	1		08/24/11 20:15
201	T2.082411.201857	L11080562-10	10982-C0003	1.369/50	1		08/24/11 20:18
202	T2.082411.202213	L11080562-11	10982-C0004	1.336/50	1		08/24/11 20:22
203	T2.082411.202529	WG373568-01	Reference Sample		1	L11080562-12	08/24/11 20:25
204	T2.082411.202853	WG373568-04	Matrix Spike	1.481/50	1	L11080562-12	08/24/11 20:28

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 082411T2.1
 Analyst1: JYH Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 38675

Calibration Std: STD46665 ICV Std: STD46666 Post Spike: STD45109
 ICSA: STD47174 ICSAB: STD47013 Int. Std: STD47185
 CCV: STD46900 LLCCV: _____

373583,374019,374020,373990,374053,374054,374055,374056

Workgroups:

Comments: Additional workgroup: 374090,374091,374092,374094

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
205	T2.082411.203228	WG374103-47	CCV		1		08/24/11 20:32
206	T2.082411.203543	WG374103-48	CCB		1		08/24/11 20:35
207	T2.082411.203917	WG373568-05	Matrix Spike Duplica	1.481/50	1	L11080562-12	08/24/11 20:39
208	T2.082411.204232	L11080562-15	10982-C0006	1.418/50	1		08/24/11 20:42
209	T2.082411.204547	L11080562-16	10982-C0007	1.374/50	1		08/24/11 20:45
210	T2.082411.204903	L11080562-17	10982-C0008	1.305/50	1		08/24/11 20:49
211	T2.082411.205219	L11080562-18	10982-C0009	1.338/50	1		08/24/11 20:52
212	T2.082411.205534	L11080562-19	10982-C0010	1.313/50	1		08/24/11 20:55
213	T2.082411.205858	L11080562-20	10982-C0011	1.359/50	1		08/24/11 20:58
214	T2.082411.210226	WG374103-49	CCV		1		08/24/11 21:02
215	T2.082411.210541	WG374103-50	CCB		1		08/24/11 21:05
216	T2.082411.210915	WG373606-02	Method/Prep Blank	1/50	1		08/24/11 21:09
217	T2.082411.211244	WG373606-03	Laboratory Control S	1/50	1		08/24/11 21:12
218	T2.082411.211611	L11080565-07	3586-C0041	1.363/50	1		08/24/11 21:16
219	T2.082411.211930	WG374090-01	Post Digestion Spike		1	L11080565-07	08/24/11 21:19
220	T2.082411.212249	WG374090-02	Serial Dilution		5	L11080565-07	08/24/11 21:22
221	T2.082411.212604	WG374090-02	Serial Dilution		25	L11080565-07	08/24/11 21:26
222	T2.082411.212925	L11080565-08	3586-C0042	1.342/50	1		08/24/11 21:29
223	T2.082411.213245	L11080565-09	3586-C0043	1.323/50	1		08/24/11 21:32
224	T2.082411.213614	L11080565-10	3586-C0044	1.416/50	1		08/24/11 21:36
225	T2.082411.213934	L11080565-11	3586-C0045	1.432/50	1		08/24/11 21:39
226	T2.082411.214256	WG374103-51	CCV		1		08/24/11 21:42
227	T2.082411.214613	WG374103-52	CCB		1		08/24/11 21:46
228	T2.082411.214946	L11080565-12	3586-C0046	1.331/50	1		08/24/11 21:49
229	T2.082411.215306	L11080565-13	3586-C0047	1.454/50	1		08/24/11 21:53
230	T2.082411.215635	L11080565-14	3586-C0048	1.45/50	1		08/24/11 21:56
231	T2.082411.215955	L11080565-15	3586-C0049	1.318/50	1		08/24/11 21:59
232	T2.082411.220323	L11080565-16	3586-C0050	1.434/50	1		08/24/11 22:03
233	T2.082411.220701	WG373606-01	Reference Sample		1	L11080565-17	08/24/11 22:07
234	T2.082411.221030	WG373606-04	Matrix Spike	1.401/50	1	L11080565-17	08/24/11 22:10
235	T2.082411.221350	WG373606-05	Matrix Spike Duplica	1.401/50	1	L11080565-17	08/24/11 22:13
236	T2.082411.221718	L11080565-20	3586-C0052	1.401/50	1		08/24/11 22:17
237	T2.082411.222038	L11080565-21	3586-C0053	1.442/50	1		08/24/11 22:20
238	T2.082411.222418	WG374103-53	CCV		1		08/24/11 22:24

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 082411T2.1
 Analyst1: JYH Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 38675

Calibration Std: STD46665 ICV Std: STD46666 Post Spike: STD45109
 ICSA: STD47174 ICSAB: STD47013 Int. Std: STD47185
 CCV: STD46900 LLCCV: _____

373583,374019,374020,373990,374053,374054,374055,374056

Workgroups:

Comments: Additional workgroup: 374090,374091,374092,374094

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
239	T2.082411.222735	WG374103-54	CCB		1		08/24/11 22:27
240	T2.082411.223108	L11080565-22	3586-C0054	1.479/50	1		08/24/11 22:31
241	T2.082411.223445	L11080565-23	3586-C0055	1.401/50	1		08/24/11 22:34
242	T2.082411.223813	L11080565-24	3586-C0056	1.347/50	1		08/24/11 22:38
243	T2.082411.224143	L11080565-25	3586-C0057	1.338/50	1		08/24/11 22:41
244	T2.082411.224521	L11080565-26	3586-C0058	1.476/50	1		08/24/11 22:45
245	T2.082411.224857	L11080565-27	3586-C0059	1.396/50	1		08/24/11 22:48
246	T2.082411.225226	L11080565-28	3586-C0060	1.387/50	1		08/24/11 22:52
247	T2.082411.225609	WG374103-55	CCV		1		08/24/11 22:56
248	T2.082411.225925	WG374103-56	CCB		1		08/24/11 22:59
249	T2.082411.230255	WG373610-02	Method/Prep Blank	1/50	1		08/24/11 23:02
250	T2.082411.230623	WG373610-03	Laboratory Control S	1/50	1		08/24/11 23:06
251	T2.082411.230949	L11080565-29	3586-C0061	1.48/50	1		08/24/11 23:09
252	T2.082411.231310	WG374091-01	Post Digestion Spike		1	L11080565-29	08/24/11 23:13
253	T2.082411.231629	WG374091-02	Serial Dilution		5	L11080565-29	08/24/11 23:16
254	T2.082411.231945	WG374091-02	Serial Dilution		25	L11080565-29	08/24/11 23:19
255	T2.082411.232306	L11080565-30	3586-C0062	1.375/50	1		08/24/11 23:23
256	T2.082411.232627	L11080565-31	3586-C0063	1.301/50	1		08/24/11 23:26
257	T2.082411.232949	L11080565-32	3586-C0064	1.389/50	1		08/24/11 23:29
258	T2.082411.233318	L11080565-33	3586-C0065	1.476/50	1		08/24/11 23:33
259	T2.082411.233652	WG374103-57	CCV		1		08/24/11 23:36
260	T2.082411.234007	WG374103-58	CCB		1		08/24/11 23:40
261	T2.082411.234338	L11080565-34	3586-C0066	1.405/50	1		08/24/11 23:43
262	T2.082411.234715	L11080565-35	3586-C0067	1.495/50	1		08/24/11 23:47
263	T2.082411.235052	L11080565-36	3586-C0068	1.405/50	1		08/24/11 23:50
264	T2.082411.235412	L11080565-37	3586-C0069	1.433/50	1		08/24/11 23:54
265	T2.082411.235734	L11080565-38	3586-C0070	1.397/50	1		08/24/11 23:57
266	T2.082511.000106	L11080565-39	3586-C0071	1.44/50	1		08/25/11 00:01
267	T2.082511.000435	L11080565-40	3586-C0072	1.348/50	1		08/25/11 00:04
268	T2.082511.000755	L11080565-41	3586-C0073	1.397/50	1		08/25/11 00:07
269	T2.082511.001130	L11080565-42	3586-C0074	1.335/50	1		08/25/11 00:11
270	T2.082511.001449	L11080565-43	3586-C0075	1.469/50	1		08/25/11 00:14
271	T2.082511.001828	WG374103-59	CCV		1		08/25/11 00:18
272	T2.082511.002144	WG374103-60	CCB		1		08/25/11 00:21

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Microbac Laboratories Inc.

Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 082411T2.1
 Analyst1: JYH Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 38675

Calibration Std: STD46665 ICV Std: STD46666 Post Spike: STD45109
 ICSA: STD47174 ICSAB: STD47013 Int. Std: STD47185
 CCV: STD46900 LLCCV: _____

373583,374019,374020,373990,374053,374054,374055,374056

Workgroups:

Comments: Additional workgroup: 374090,374091,374092,374094

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
273	T2.082511.002518	L11080565-44	3586-C0076	1.439/50	1		08/25/11 00:25
274	T2.082511.002855	WG373610-01	Reference Sample		1	L11080565-45	08/25/11 00:28
275	T2.082511.003210	WG373610-04	Matrix Spike	1.399/50	1	L11080565-45	08/25/11 00:32
276	T2.082511.003526	WG373610-05	Matrix Spike Duplica	1.399/50	1	L11080565-45	08/25/11 00:35
277	T2.082511.003841	L11080565-48	7583-C0002	1.465/50	1		08/25/11 00:38
278	T2.082511.004205	L11080566-01	7583-C0003	1.445/50	1		08/25/11 00:42
279	T2.082511.004537	L11080566-02	7583-C0004	1.451/50	1		08/25/11 00:45
280	T2.082511.004914	WG374103-61	CCV		1		08/25/11 00:49
281	T2.082511.005230	WG374103-62	CCB		1		08/25/11 00:52
282	T2.082511.005607	WG373645-02	Method/Prep Blank	1/50	1		08/25/11 00:56
283	T2.082511.005934	WG373645-03	Laboratory Control S	1/50	1		08/25/11 00:59
284	T2.082511.010301	L11080566-03	7583-C0005	1.479/50	1		08/25/11 01:03
285	T2.082511.010633	WG374092-01	Post Digestion Spike		1	L11080566-03	08/25/11 01:06
286	T2.082511.011002	WG374092-02	Serial Dilution		5	L11080566-03	08/25/11 01:10
287	T2.082511.011328	WG374092-02	Serial Dilution		25	L11080566-03	08/25/11 01:13
288	T2.082511.011651	L11080566-04	7583-C0006	1.398/50	1		08/25/11 01:16
289	T2.082511.012015	L11080566-05	7583-C0007	1.432/50	1		08/25/11 01:20
290	T2.082511.012353	L11080566-06	7583-C0008	1.452/50	1		08/25/11 01:23
291	T2.082511.012717	L11080566-07	7583-C0009	1.463/50	1		08/25/11 01:27
292	T2.082511.013058	WG374103-63	CCV		1		08/25/11 01:30
293	T2.082511.013412	WG374103-64	CCB		1		08/25/11 01:34
294	T2.082511.013747	L11080566-08	7583-C0010	1.466/50	1		08/25/11 01:37
295	T2.082511.014118	L11080566-09	7583-C0011	1.348/50	1		08/25/11 01:41
296	T2.082511.014434	L11080566-10	7583-C0012	1.357/50	1		08/25/11 01:44
297	T2.082511.014750	L11080566-11	7583-C0013	1.44/50	1		08/25/11 01:47
298	T2.082511.015105	WG373645-01	Reference Sample		1	L11080566-12	08/25/11 01:51
299	T2.082511.015420	WG373645-04	Matrix Spike	1.489/50	1	L11080566-12	08/25/11 01:54
300	T2.082511.015743	WG373645-05	Matrix Spike Duplica	1.489/50	1	L11080566-12	08/25/11 01:57
301	T2.082511.020101	L11080566-15	7583-C0015	1.434/50	1		08/25/11 02:01
302	T2.082511.020415	L11080566-16	7583-C0016	1.463/50	1		08/25/11 02:04
303	T2.082511.020739	L11080566-17	7583-C0017	1.359/50	1		08/25/11 02:07
304	T2.082511.021104	WG374103-65	CCV		1		08/25/11 02:11
305	T2.082511.021417	WG374103-66	CCB		1		08/25/11 02:14
306	T2.082511.021751	L11080566-18	7583-C0018	1.493/50	1		08/25/11 02:17

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 082411T2.1
 Analyst1: JYH Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 38675

Calibration Std: STD46665 ICV Std: STD46666 Post Spike: STD45109
 ICSA: STD47174 ICSAB: STD47013 Int. Std: STD47185
 CCV: STD46900 LLCCV: _____

373583,374019,374020,373990,374053,374054,374055,374056

Workgroups:

Comments: Additional workgroup: 374090,374091,374092,374094

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
307	T2.082511.022114	L11080566-19	7583-C0019	1.353/50	1		08/25/11 02:21
308	T2.082511.022429	L11080566-20	7583-C0020	1.329/50	1		08/25/11 02:24
309	T2.082511.022745	L11080566-21	7583-C0021	1.321/50	1		08/25/11 02:27
310	T2.082511.023118	L11080566-22	7583-C0022	1.391/50	1		08/25/11 02:31
311	T2.082511.023433	L11080566-23	7583-C0023	1.434/50	1		08/25/11 02:34
312	T2.082511.023749	L11080566-24	7583-C0024	1.404/50	1		08/25/11 02:37
313	T2.082511.024111	WG374103-67	CCV		1		08/25/11 02:41
314	T2.082511.024423	WG374103-68	CCB		1		08/25/11 02:44
315	T2.082511.024756	WG373647-02	Method/Prep Blank	1/50	1		08/25/11 02:47
316	T2.082511.025124	WG373647-03	Laboratory Control S	1/50	1		08/25/11 02:51
317	T2.082511.025450	L11080566-25	7583-C0025	1.379/50	1		08/25/11 02:54
318	T2.082511.025805	WG374094-01	Post Digestion Spike		1	L11080566-25	08/25/11 02:58
319	T2.082511.030117	WG374094-02	Serial Dilution		5	L11080566-25	08/25/11 03:01
320	T2.082511.030443	WG374094-02	Serial Dilution		25	L11080566-25	08/25/11 03:04
321	T2.082511.030807	L11080566-26	7583-C0026	1.378/50	1		08/25/11 03:08
322	T2.082511.031121	L11080566-27	7583-C0027	1.415/50	1		08/25/11 03:11
323	T2.082511.031453	L11080566-28	7583-C0028	1.466/50	1		08/25/11 03:14
324	T2.082511.031810	L11080566-29	7583-C0029	1.469/50	1		08/25/11 03:18
325	T2.082511.032147	WG374103-69	CCV		1		08/25/11 03:21
326	T2.082511.032500	WG374103-70	CCB		1		08/25/11 03:25
327	T2.082511.032834	L11080566-30	7583-C0030	1.478/50	1		08/25/11 03:28
328	T2.082511.033206	L11080566-31	7583-C0031	1.397/50	1		08/25/11 03:32
329	T2.082511.033528	L11080566-32	7583-C0032	1.408/50	1		08/25/11 03:35
330	T2.082511.033852	L11080566-33	7583-C0033	1.37/50	1		08/25/11 03:38
331	T2.082511.034216	L11080566-34	7583-C0034	1.36/50	1		08/25/11 03:42
332	T2.082511.034531	L11080566-35	7583-C0035	1.488/50	1		08/25/11 03:45
333	T2.082511.034855	L11080566-36	7583-C0036	1.35/50	1		08/25/11 03:48
334	T2.082511.035227	L11080566-37	7583-C0037	1.397/50	1		08/25/11 03:52
335	T2.082511.035556	L11080566-38	7583-C0038	1.446/50	1		08/25/11 03:55
336	T2.082511.035936	L11080566-39	7583-C0039	1.437/50	1		08/25/11 03:59
337	T2.082511.040311	WG374103-71	CCV		1		08/25/11 04:03
338	T2.082511.040624	WG374103-72	CCB		1		08/25/11 04:06
339	T2.082511.040959	L11080566-40	7583-C0040	1.325/50	1		08/25/11 04:09
340	T2.082511.041315	L11080566-41	7583-C0041	1.369/50	1		08/25/11 04:13

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Microbac Laboratories Inc.

Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 082411T2.1
 Analyst1: JYH Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 38675

Calibration Std: STD46665 ICV Std: STD46666 Post Spike: STD45109
 ICSA: STD47174 ICSAB: STD47013 Int. Std: STD47185
 CCV: STD46900 LLCCV: _____

373583,374019,374020,373990,374053,374054,374055,374056

Workgroups:

Comments: Additional workgroup: 374090,374091,374092,374094

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
341	T2.082511.041630	L11080566-42	7583-C0042	1.418/50	1		08/25/11 04:16
342	T2.082511.041945	L11080566-43	7583-C0043	1.394/50	1		08/25/11 04:19
343	T2.082511.042317	WG373647-01	Reference Sample		1	L11080566-44	08/25/11 04:23
344	T2.082511.042647	WG373647-04	Matrix Spike	1.393/50	1	L11080566-44	08/25/11 04:26
345	T2.082511.043018	WG373647-05	Matrix Spike Duplica	1.393/50	1	L11080566-44	08/25/11 04:30
346	T2.082511.043355	WG374103-73	CCV		1		08/25/11 04:33
347	T2.082511.043709	WG374103-74	CCB		1		08/25/11 04:37

Page: 11 Approved: August 25, 2011

Sam H. Rhodes



Microbac Laboratories Inc.

Data Checklist

Date: 11-AUG-2011
 Analyst: JYH
 Analyst: NA
 Method: 6010
 Instrument: ICP-THERMO2
 Curve Workgroup: 372983
 Runlog ID: 42093
 Analytical Workgroups: 372936,372832,372953,372954

Additional Workgroups:	X
Calibration/Linearity	X
ICV/CCV	X
ICB/CCB	X
ICSA/ICSAB	X
CRI	
Blank/LCS	X
MS/MSD	X
Post Spike/Serial Dilution	X
Upload Results	X
Data Qualifiers	
Generate PDF Instrument Data	X
Sign/Annotate PDF Data	X
Upload Curve Data	X
Workgroup Forms	X
Case Narrative	X
Client Forms	X
Level X	
Level 3	
Level 4	324,332,217,302,303
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Primary Reviewer	JYH
Secondary Reviewer	SLP
Comments	

Primary Reviewer:



Secondary Reviewer:
12-AUG-2011




Microbac Laboratories Inc.

Data Checklist

Date: 15-AUG-2011
 Analyst: PDM
 Analyst: NA
 Method: 6010
 Instrument: ICP-THERMO1
 Curve Workgroup: 373289
 Runlog ID: 42145
 Analytical Workgroups: 373160,373161,373240,373241,373060,373061,373063,373057

Calibration/Linearity	X
ICV/CCV	X
ICB/CCB	X
ICSA/ICSAB	X
CRI	
Blank/LCS	X
MS/MSD	X
Post Spike/Serial Dilution	X
Upload Results	X
Data Qualifiers	
Generate PDF Instrument Data	X
Sign/Annotate PDF Data	X
Upload Curve Data	X
Workgroup Forms	X
Case Narrative	0311,0312,0300,0376,0332,0382,0307 0308,0306
Client Forms	X
Level X	
Level 3	
Level 4	0311,0312,0300,0376,0332,0382,0307 0308,0306
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Primary Reviewer	PDM
Secondary Reviewer	SLP
Comments	

Primary Reviewer:
16-AUG-2011

Secondary Reviewer:
16-AUG-2011

Pierce Morris

Shari L. Plakoff



Microbac Laboratories Inc.

Data Checklist

Date: 18-AUG-2011
 Analyst: PDM
 Analyst: NA
 Method: 6010
 Instrument: ICP-THERMO2
 Curve Workgroup: 373676
 Runlog ID: 42203
 Analytical Workgroups: 373576,373582,373583,3673500,373584,373585,

Calibration/Linearity	X
ICV/CCV	X
ICB/CCB	X
ICSA/ICSAB	X
CRI	
Blank/LCS	X
MS/MSD	X
Post Spike/Serial Dilution	X
Upload Results	X
Data Qualifiers	
Generate PDF Instrument Data	X
Sign/Annotate PDF Data	X
Upload Curve Data	X
Workgroup Forms	X
Case Narrative	0553,0559,0488,0501,0514,0532,0332 0437,0449,0450,0451
Client Forms	X
Level X	
Level 3	
Level 4	0553,0559,0488,0501,0514,0532,0332 0437,0449,0450,0451
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Primary Reviewer	PDM
Secondary Reviewer	MMB
Comments	

Primary Reviewer:
19-AUG-2011

Secondary Reviewer:
19-AUG-2011

Pierce Morris *Maren Beery*



Microbac Laboratories Inc.

Data Checklist

Date: 22-AUG-2011
 Analyst: PDM
 Analyst: NA
 Method: 6010
 Instrument: ICP-THERMO2
 Curve Workgroup: 373833
 Runlog ID: 42239
 Analytical Workgroups: 373729,373582,373583,373116,373355,373849,373847,373874

Additional Workgroups	373588,373585,373500,373851
Additional Workgroups	373887,373888
Calibration/Linearity	X
ICV/CCV	X
ICB/CCB	X
ICSA/ICSAB	X
CRI	
Blank/LCS	X
MS/MSD	X
Post Spike/Serial Dilution	X
Upload Results	X
Data Qualifiers	
Generate PDF Instrument Data	X
Sign/Annotate PDF Data	X
Upload Curve Data	X
Workgroup Forms	X
Case Narrative	0569,0459,0488,0501,0514,0532,0437 0300,0332,0251,0453,0452,0451,0450 0579,0454
Client Forms	
Level X	
Level 3	
Level 4	0569,0459,0488,0501,0514,0532,0437 0300,0332,0251,0453,0452,0451,0450 0579,0454
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Primary Reviewer	PDM
Secondary Reviewer	MMB
Comments	

Primary Reviewer:
23-AUG-2011

Secondary Reviewer:
23-AUG-2011

Pierce Morris *Maren Beery*



Microbac Laboratories Inc.

Data Checklist

Date: 23-AUG-2011
 Analyst: JYH
 Analyst: NA
 Method: 6010
 Instrument: ICP-THERMO2
 Curve Workgroup: 373942
 Runlog ID: 42265
 Analytical Workgroups: 373587,373722,373969,373500,373851,373902,373850,373903

Additional Workgroups	373936,373990,373992
Calibration/Linearity	X
ICV/CCV	X
ICB/CCB	X
ICSA/ICSAB	X
CRI	
Blank/LCS	X
MS/MSD	X
Post Spike/Serial Dilution	X
Upload Results	X
Data Qualifiers	
Generate PDF Instrument Data	X
Sign/Annotate PDF Data	X
Upload Curve Data	X
Workgroup Forms	X
Case Narrative	X
Client Forms	
Level X	
Level 3	618
Level 4	451,452,332,453,597,598,450,485
	501,500,454,501,537
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Primary Reviewer	JYH
Secondary Reviewer	MMB
Comments	

Primary Reviewer:
24-AUG-2011

Secondary Reviewer:
24-AUG-2011



Microbac Laboratories Inc.

Data Checklist

Date: 24-AUG-2011
 Analyst: JYH
 Analyst: NA
 Method: 6010
 Instrument: ICP-THERMO2
 Curve Workgroup: 374103
 Runlog ID: 42295
 Analytical Workgroups: 373583,374019,374020,373990,374053,374054,374055,374056

Additional Workgroups	374090,374091,374092,374094
Calibration/Linearity	X
ICV/CCV	X
ICB/CCB	X
ICSA/ICSAB	X
CRI	
Blank/LCS	X
MS/MSD	X
Post Spike/Serial Dilution	X
Upload Results	X
Data Qualifiers	
Generate PDF Instrument Data	X
Sign/Annotate PDF Data	X
Upload Curve Data	X
Workgroup Forms	X
Case Narrative	X
Client Forms	
Level X	
Level 3	
Level 4	537,560,500,561,562,565,566
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Primary Reviewer	JYH
Secondary Reviewer	KHR
Comments	

Primary Reviewer:

Secondary Reviewer:
25-AUG-2011



Microbac Laboratories Inc.
HOLDING TIMES
 EQUIVALENT TO AFCEE FORM 9

Analytical Method:6010B
 Login Number:L11080332

AAB#:WG372936

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
DE-17G-07262011	03	07/26/11					08/11/11	15.7	180		08/11/11	15.9	180	
DE-17G-07262011-MS	04	07/26/11					08/11/11	15.7	180		08/11/11	15.9	180	
DE-17G-07262011-MSD	05	07/26/11					08/11/11	15.7	180		08/11/11	15.9	180	

* = SEE PROJECT QAPP REQUIREMENTS

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 PDF File ID: 2113460
 Report generated 08/23/2011 13:09



Microbac Laboratories Inc.
HOLDING TIMES
 EQUIVALENT TO AFCEE FORM 9

Analytical Method:6010B
 Login Number:L11080332

AAB#:WG373116

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
DE-17E-07262011	01	07/26/11					08/12/11	16.7	180		08/22/11	27	180	
DE-17F-07262011	02	07/26/11					08/12/11	16.7	180		08/22/11	27	180	
DE-18A-07252011	06	07/25/11					08/12/11	17.7	180		08/22/11	28	180	
DE-18B-07252011	07	07/25/11					08/12/11	17.7	180		08/22/11	28	180	
DE-18C-07252011	08	07/25/11					08/12/11	17.7	180		08/23/11	28.8	180	
DE-18D-07252011	09	07/25/11					08/12/11	17.7	180		08/22/11	28	180	
DE-18D-07252011-DUP	10	07/25/11					08/12/11	17.7	180		08/22/11	28	180	
DE-18E-07252011	11	07/25/11					08/12/11	17.7	180		08/22/11	28	180	
DE-18F-07252011	12	07/25/11					08/12/11	17.7	180		08/22/11	28	180	
DE-18G-07252011	13	07/25/11					08/12/11	17.7	180		08/22/11	28	180	
DE-19E-07252011	19	07/25/11					08/12/11	17.7	180		08/22/11	28	180	
DE-19E-07252011-MS	20	07/25/11					08/12/11	17.7	180		08/22/11	28	180	
DE-19E-07252011-MSD	21	07/25/11					08/12/11	17.7	180		08/22/11	28	180	

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 PDF File ID: 2113460
 Report generated 08/23/2011 13:09



Microbac Laboratories Inc.
HOLDING TIMES
 EQUIVALENT TO AFCEE FORM 9

Analytical Method:6010B
 Login Number:L11080332

AAB#:WG373241

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
DE-19A-07252011	14	07/25/11					08/12/11	17.8	180		08/15/11	21.2	180	
DE-19B-07252011	15	07/25/11					08/12/11	17.8	180		08/15/11	21.2	180	
DE-19C-07252011	16	07/25/11					08/12/11	17.8	180		08/15/11	21.2	180	
DE-19D-07252011	17	07/25/11					08/12/11	17.8	180		08/15/11	21.2	180	
DE-19D-07252011-DUP	18	07/25/11					08/12/11	17.8	180		08/15/11	21.2	180	
DE-19F-07252011	22	07/25/11					08/12/11	17.8	180		08/15/11	21.2	180	
DE-19G-07252011	23	07/25/11					08/12/11	17.8	180		08/15/11	21.2	180	
DE-20A-07252011	24	07/25/11					08/12/11	17.8	180		08/15/11	21.2	180	
DE-20G-07252011	25	07/25/11					08/12/11	17.8	180		08/15/11	21.2	180	
DE-26C-07272011	26	07/27/11					08/12/11	16.1	180		08/15/11	19.6	180	
DE-26D-07272011	27	07/27/11					08/12/11	16.1	180		08/15/11	19.6	180	
DE-26E-07272011	28	07/27/11					08/12/11	16.1	180		08/15/11	19.6	180	
DE-26F-07272011	29	07/27/11					08/12/11	16.1	180		08/15/11	19.6	180	
DE-26G-07272011	30	07/27/11					08/12/11	16.1	180		08/15/11	19.6	180	
DE-26G-07272011-MS	31	07/27/11					08/12/11	16.1	180		08/15/11	19.6	180	
DE-26G-07272011-MSD	32	07/27/11					08/12/11	16.1	180		08/15/11	19.6	180	
DE-25A-07262011	33	07/26/11					08/12/11	16.9	180		08/15/11	20.4	180	
DE-25B-07262011	34	07/26/11					08/12/11	16.9	180		08/15/11	20.4	180	
DE-25C-07262011	35	07/26/11					08/12/11	16.9	180		08/15/11	20.4	180	
DE-25C-07262011-DUP	36	07/26/11					08/12/11	16.9	180		08/15/11	20.4	180	
DE-25D-07262011	37	07/26/11					08/12/11	16.9	180		08/15/11	20.4	180	

* = SEE PROJECT QAPP REQUIREMENTS

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 PDF File ID: 2113460
 Report generated 08/23/2011 13:09



Microbac Laboratories Inc.
HOLDING TIMES
 EQUIVALENT TO AFCEE FORM 9

Analytical Method:6010B
 Login Number:L11080332

AAB#:WG373583

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
DE-16G-07262011	82	07/26/11					08/15/11	19.7	180		08/18/11	22.9	180	
DE-17A-07262011	83	07/26/11					08/15/11	19.8	180		08/18/11	23	180	
DE-17B-07262011	84	07/26/11					08/15/11	19.8	180		08/18/11	23	180	
DE-17C-07262011	85	07/26/11					08/15/11	19.8	180		08/18/11	23	180	
DE-17C-07262011-DUP	86	07/26/11					08/15/11	19.8	180		08/18/11	23	180	
DE-17D-07262011	87	07/26/11					08/15/11	19.8	180		08/18/11	23	180	

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 PDF File ID: 2113460
 Report generated 08/23/2011 13:09



Microbac Laboratories Inc.
HOLDING TIMES
 EQUIVALENT TO AFCEE FORM 9

Analytical Method:6010B
 Login Number:L11080332

AAB#:WG373847

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
DE-25E-07262011	38	07/26/11					08/15/11	19.7	180		08/22/11	27.2	180	
DE-25F-07262011	39	07/26/11					08/15/11	19.7	180		08/22/11	27.2	180	
DE-25G-07262011	40	07/26/11					08/15/11	19.7	180		08/22/11	27.2	180	
DE-24A-07262011	41	07/26/11					08/15/11	19.8	180		08/22/11	27.3	180	
DE-24G-07262011	42	07/26/11					08/15/11	19.8	180		08/22/11	27.3	180	
DE-23A-07262011	43	07/26/11					08/15/11	19.9	180		08/22/11	27.4	180	
DE-23B-07262011	44	07/26/11					08/15/11	19.9	180		08/22/11	27.4	180	
DE-23C-07262011	45	07/26/11					08/15/11	19.9	180		08/22/11	27.4	180	
DE-23D-07262011	46	07/26/11					08/15/11	19.9	180		08/22/11	27.3	180	
DE-23E-07262011	47	07/26/11					08/15/11	19.9	180		08/22/11	27.3	180	
DE-23E-07262011-DUP	48	07/26/11					08/15/11	19.9	180		08/22/11	27.3	180	
DE-23F-07262011	49	07/26/11					08/15/11	19.8	180		08/22/11	27.3	180	
DE-23G-07262011	50	07/26/11					08/15/11	19.8	180		08/22/11	27.4	180	
DE-22A-07262011	51	07/26/11					08/15/11	19.9	180		08/22/11	27.4	180	
DE-22G-07262011	52	07/26/11					08/15/11	19.9	180		08/22/11	27.4	180	
DE-21A-07262011	53	07/26/11					08/15/11	19.9	180		08/22/11	27.4	180	
DE-21B-07262011	54	07/26/11					08/15/11	19.9	180		08/22/11	27.4	180	
DE-21C-07262011	55	07/26/11					08/15/11	19.9	180		08/22/11	27.4	180	
DE-21D-07262011	56	07/26/11					08/15/11	19.9	180		08/22/11	27.4	180	
DE-21E-07262011	58	07/26/11					08/15/11	19.9	180		08/22/11	27.4	180	
DE-21E-07262011-MS	59	07/26/11					08/15/11	19.9	180		08/22/11	27.4	180	
DE-21E-07262011-MSD	60	07/26/11					08/15/11	19.9	180		08/22/11	27.4	180	

* = SEE PROJECT QAPP REQUIREMENTS



Microbac Laboratories Inc.
HOLDING TIMES
 EQUIVALENT TO AFCEE FORM 9

Analytical Method:6010B
 Login Number:L11080332

AAB#:WG373849

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
DE-21D-07262011-DUP	57	07/26/11					08/15/11	19.9	180		08/22/11	27.3	180	
DE-21G-07262011	61	07/26/11					08/15/11	19.9	180		08/22/11	27.3	180	
DE-13B-07262011	62	07/26/11					08/15/11	19.7	180		08/22/11	27	180	
DE-13C-07262011	63	07/26/11					08/15/11	19.6	180		08/22/11	27	180	
DE-13D-07262011	64	07/26/11					08/15/11	19.6	180		08/22/11	27	180	
DE-13E-07262011	65	07/26/11					08/15/11	19.6	180		08/22/11	27	180	
DE-13E-07262011-MS	66	07/26/11					08/15/11	19.6	180		08/22/11	27	180	
DE-13E-07262011-MSD	67	07/26/11					08/15/11	19.6	180		08/22/11	27	180	
DE-13F-07262011	68	07/26/11					08/15/11	19.6	180		08/22/11	27	180	
DE-13G-07262011	69	07/26/11					08/15/11	19.6	180		08/22/11	27	180	
DE-13G-07262011-DUP	70	07/26/11					08/15/11	19.6	180		08/22/11	27	180	
DE-14B-07262011	71	07/26/11					08/15/11	19.7	180		08/22/11	27.1	180	
DE-14C-07262011	72	07/26/11					08/15/11	19.7	180		08/22/11	27.1	180	
DE-14D-07262011	73	07/26/11					08/15/11	19.7	180		08/22/11	27.1	180	
DE-14E-07262011	74	07/26/11					08/15/11	19.7	180		08/22/11	27.1	180	
DE-14F-07262011	75	07/26/11					08/15/11	19.7	180		08/22/11	27.1	180	
DE-14F-07262011-DUP	76	07/26/11					08/15/11	19.7	180		08/22/11	27.1	180	
DE-14G-07262011	77	07/26/11					08/15/11	19.7	180		08/22/11	27.1	180	
DE-15B-07262011	78	07/26/11					08/15/11	19.6	180		08/22/11	27	180	
DE-15G-07262011	79	07/26/11					08/15/11	19.6	180		08/22/11	27	180	
DE-15G-07262011-DUP	80	07/26/11					08/15/11	19.6	180		08/22/11	27	180	
DE-16B-07262011	81	07/26/11					08/15/11	19.6	180		08/22/11	27	180	

* = SEE PROJECT QAPP REQUIREMENTS



METHOD BLANK SUMMARY

Login Number: L11080332 Work Group: WG372936
 Blank File ID: T2.081111.125342 Blank Sample ID: WG372883-02
 Prep Date: 08/11/11 07:38 Instrument ID: ICP-THERMO2
 Analyzed Date: 08/11/11 12:53 Method: 6010B
 Analyst: JYH

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG372883-03	T2.081111.125703	08/11/11 12:57	01
DE-17G-07262011	L11080332-03	T2.081111.132554	08/11/11 13:25	01
DE-17G-07262011-MS	L11080332-04	T2.081111.132908	08/11/11 13:29	01
DE-17G-07262011-MSD	L11080332-05	T2.081111.133224	08/11/11 13:32	01

Report Name: BLANK_SUMMARY
 PDF File ID: 2113461
 Report generated 08/23/2011 13:09



METHOD BLANK SUMMARY

Login Number: L11080332
 Blank File ID: T2.081511.220947
 Prep Date: 08/12/11 12:26
 Analyzed Date: 08/15/11 22:09
 Analyst: PDM

Work Group: WG373241
 Blank Sample ID: WG373087-02
 Instrument ID: ICP-THERMO2
 Method: 6010B

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG373087-03	T2.081511.221311	08/15/11 22:13	01
DE-19A-07252011	L11080332-14	T2.081511.221623	08/15/11 22:16	01
DE-19B-07252011	L11080332-15	T2.081511.222938	08/15/11 22:29	01
DE-19C-07252011	L11080332-16	T2.081511.223254	08/15/11 22:32	01
DE-19D-07252011	L11080332-17	T2.081511.223610	08/15/11 22:36	01
DE-19D-07252011-DUP	L11080332-18	T2.081511.223925	08/15/11 22:39	01
DE-19F-07252011	L11080332-22	T2.081511.224923	08/15/11 22:49	01
DE-19G-07252011	L11080332-23	T2.081511.225250	08/15/11 22:52	01
DE-20A-07252011	L11080332-24	T2.081511.225606	08/15/11 22:56	01
DE-20G-07252011	L11080332-25	T2.081511.225925	08/15/11 22:59	01
DE-26C-07272011	L11080332-26	T2.081511.230243	08/15/11 23:02	01
DE-26D-07272011	L11080332-27	T2.081511.230608	08/15/11 23:06	01
DE-26E-07272011	L11080332-28	T2.081511.230928	08/15/11 23:09	01
DE-26F-07272011	L11080332-29	T2.081511.231258	08/15/11 23:12	01
DE-26G-07272011	L11080332-30	T2.081511.231623	08/15/11 23:16	01
DE-26G-07272011-MS	L11080332-31	T2.081511.231940	08/15/11 23:19	01
DE-26G-07272011-MSD	L11080332-32	T2.081511.232942	08/15/11 23:29	01
DE-25A-07262011	L11080332-33	T2.081511.233258	08/15/11 23:32	01
DE-25B-07262011	L11080332-34	T2.081511.233605	08/15/11 23:36	01
DE-25C-07262011	L11080332-35	T2.081511.233914	08/15/11 23:39	01
DE-25C-07262011-DUP	L11080332-36	T2.081511.234222	08/15/11 23:42	01
DE-25D-07262011	L11080332-37	T2.081511.234531	08/15/11 23:45	01

Report Name: BLANK_SUMMARY
 PDF File ID: 2113461
 Report generated 08/23/2011 13:09



METHOD BLANK SUMMARY

Login Number: L11080332 Work Group: WG373583
 Blank File ID: T2.081811.144054 Blank Sample ID: WG373200-02
 Prep Date: 08/15/11 10:23 Instrument ID: ICP-THERMO2
 Analyzed Date: 08/18/11 14:40 Method: 6010B
 Analyst: PDM

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG373200-03	T2.081811.144418	08/18/11 14:44	01
DE-16G-07262011	L11080332-82	T2.081811.144731	08/18/11 14:47	01
DE-17A-07262011	L11080332-83	T2.081811.150044	08/18/11 15:00	01
DE-17B-07262011	L11080332-84	T2.081811.150356	08/18/11 15:03	01
DE-17C-07262011	L11080332-85	T2.081811.150705	08/18/11 15:07	01
DE-17C-07262011-DUP	L11080332-86	T2.081811.151020	08/18/11 15:10	01
DE-17D-07262011	L11080332-87	T2.081811.152030	08/18/11 15:20	01

Report Name: BLANK_SUMMARY
 PDF File ID: 2113461
 Report generated 08/23/2011 13:09



METHOD BLANK SUMMARY

Login Number: L11080332 Work Group: WG373116
 Blank File ID: T2.082211.143140 Blank Sample ID: WG373033-02
 Prep Date: 08/12/11 08:53 Instrument ID: ICP-THERMO2
 Analyzed Date: 08/22/11 14:31 Method: 6010B
 Analyst: KHR

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG373033-03	T2.082211.143507	08/22/11 14:35	01
DE-17E-07262011	L11080332-01	T2.082211.152609	08/22/11 15:26	01
DE-17F-07262011	L11080332-02	T2.082211.152931	08/22/11 15:29	01
DE-18A-07252011	L11080332-06	T2.082211.153252	08/22/11 15:32	01
DE-18B-07252011	L11080332-07	T2.082211.153625	08/22/11 15:36	01
DE-18D-07252011	L11080332-09	T2.082211.154309	08/22/11 15:43	01
DE-18D-07252011-DUP	L11080332-10	T2.082211.155335	08/22/11 15:53	01
DE-18E-07252011	L11080332-11	T2.082211.155709	08/22/11 15:57	01
DE-18F-07252011	L11080332-12	T2.082211.160045	08/22/11 16:00	01
DE-18G-07252011	L11080332-13	T2.082211.160414	08/22/11 16:04	01
DE-19E-07252011	L11080332-19	T2.082211.160735	08/22/11 16:07	01
DE-19E-07252011-MS	L11080332-20	T2.082211.161103	08/22/11 16:11	01
DE-19E-07252011-MSD	L11080332-21	T2.082211.161429	08/22/11 16:14	01
DE-18C-07252011	L11080332-08	T2.082311.114000	08/23/11 11:40	DL01

Report Name: BLANK_SUMMARY
 PDF File ID: 2113461
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METHOD BLANK SUMMARY

Login Number: L11080332
 Blank File ID: T2.082211.163432
 Prep Date: 08/15/11 07:47
 Analyzed Date: 08/22/11 16:34
 Analyst: KHR

Work Group: WG373849
 Blank Sample ID: WG373152-02
 Instrument ID: ICP-THERMO2
 Method: 6010B

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG373152-03	T2.082211.163800	08/22/11 16:38	01
DE-21D-07262011-DUP	L11080332-57	T2.082211.164114	08/22/11 16:41	01
DE-21G-07262011	L11080332-61	T2.082211.165449	08/22/11 16:54	01
DE-13B-07262011	L11080332-62	T2.082211.165810	08/22/11 16:58	01
DE-13C-07262011	L11080332-63	T2.082211.170132	08/22/11 17:01	01
DE-13D-07262011	L11080332-64	T2.082211.170452	08/22/11 17:04	01
DE-13E-07262011	L11080332-65	T2.082211.171457	08/22/11 17:14	01
DE-13E-07262011-MS	L11080332-66	T2.082211.171818	08/22/11 17:18	01
DE-13E-07262011-MSD	L11080332-67	T2.082211.172135	08/22/11 17:21	01
DE-13F-07262011	L11080332-68	T2.082211.172451	08/22/11 17:24	01
DE-13G-07262011	L11080332-69	T2.082211.172820	08/22/11 17:28	01
DE-13G-07262011-DUP	L11080332-70	T2.082211.173149	08/22/11 17:31	01
DE-14B-07262011	L11080332-71	T2.082211.173518	08/22/11 17:35	01
DE-14C-07262011	L11080332-72	T2.082211.173850	08/22/11 17:38	01
DE-14D-07262011	L11080332-73	T2.082211.174211	08/22/11 17:42	01
DE-14E-07262011	L11080332-74	T2.082211.174530	08/22/11 17:45	01
DE-14F-07262011	L11080332-75	T2.082211.175547	08/22/11 17:55	01
DE-14F-07262011-DUP	L11080332-76	T2.082211.175900	08/22/11 17:59	01
DE-14G-07262011	L11080332-77	T2.082211.180222	08/22/11 18:02	01
DE-15B-07262011	L11080332-78	T2.082211.180547	08/22/11 18:05	01
DE-15G-07262011	L11080332-79	T2.082211.180907	08/22/11 18:09	01
DE-15G-07262011-DUP	L11080332-80	T2.082211.181235	08/22/11 18:12	01
DE-16B-07262011	L11080332-81	T2.082211.181559	08/22/11 18:15	01

Report Name: BLANK_SUMMARY
 PDF File ID: 2113461
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METHOD BLANK SUMMARY

Login Number: L11080332 Work Group: WG373847
 Blank File ID: T2.082211.183256 Blank Sample ID: WG373151-02
 Prep Date: 08/15/11 07:32 Instrument ID: ICP-THERMO2
 Analyzed Date: 08/22/11 18:32 Method: 6010B
 Analyst: KHR

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG373151-03	T2.082211.183624	08/22/11 18:36	01
DE-25E-07262011	L11080332-38	T2.082211.183939	08/22/11 18:39	01
DE-25F-07262011	L11080332-39	T2.082211.185259	08/22/11 18:52	01
DE-25G-07262011	L11080332-40	T2.082211.185619	08/22/11 18:56	01
DE-24A-07262011	L11080332-41	T2.082211.185939	08/22/11 18:59	01
DE-24G-07262011	L11080332-42	T2.082211.190257	08/22/11 19:02	01
DE-23A-07262011	L11080332-43	T2.082211.191254	08/22/11 19:12	01
DE-23B-07262011	L11080332-44	T2.082211.191604	08/22/11 19:16	01
DE-23C-07262011	L11080332-45	T2.082211.191915	08/22/11 19:19	01
DE-23D-07262011	L11080332-46	T2.082211.192231	08/22/11 19:22	01
DE-23E-07262011	L11080332-47	T2.082211.192553	08/22/11 19:25	01
DE-23E-07262011-DUP	L11080332-48	T2.082211.192915	08/22/11 19:29	01
DE-23F-07262011	L11080332-49	T2.082211.193236	08/22/11 19:32	01
DE-23G-07262011	L11080332-50	T2.082211.193558	08/22/11 19:35	01
DE-22A-07262011	L11080332-51	T2.082211.193920	08/22/11 19:39	01
DE-22G-07262011	L11080332-52	T2.082211.194238	08/22/11 19:42	01
DE-21A-07262011	L11080332-53	T2.082211.195245	08/22/11 19:52	01
DE-21B-07262011	L11080332-54	T2.082211.195604	08/22/11 19:56	01
DE-21C-07262011	L11080332-55	T2.082211.195931	08/22/11 19:59	DL01
DE-21D-07262011	L11080332-56	T2.082211.200251	08/22/11 20:02	01
DE-21E-07262011	L11080332-58	T2.082211.200628	08/22/11 20:06	01
DE-21E-07262011-MS	L11080332-59	T2.082211.200938	08/22/11 20:09	01
DE-21E-07262011-MSD	L11080332-60	T2.082211.201256	08/22/11 20:12	01

Report Name: BLANK_SUMMARY
 PDF File ID: 2113461
 Report generated 08/23/2011 13:09



Microbac Laboratories Inc.
METHOD BLANK REPORT

Login Number: L11080332 Prep Date: 08/11/11 07:38 Sample ID: WG372883-02
Instrument ID: ICP-THERMO2 Run Date: 08/11/11 12:53 Prep Method: 3051A
File ID: T2.081111.125342 Analyst: JYH Method: 6010B
Workgroup (AAB#): WG372936 Matrix: Soil Units: mg/kg
Contract #: _____ Cal ID: ICP-TH-11-AUG-11

Analytes	MDL	RL	Concentration	Dilution	Qualifier
Arsenic, Total	2.50	5.00	2.50	1	U
Cadmium, Total	0.250	0.500	0.250	1	U

MDL Method Detection Limit
RL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name: BLANK
PDF ID: 2113462
23-AUG-2011 13:09



Microbac Laboratories Inc.
METHOD BLANK REPORT

Login Number: L11080332 Prep Date: 08/12/11 12:26 Sample ID: WG373087-02
Instrument ID: ICP-THERMO2 Run Date: 08/15/11 22:09 Prep Method: 3051A
File ID: T2.081511.220947 Analyst: PDM Method: 6010B
Workgroup (AAB#): WG373241 Matrix: Soil Units: mg/kg
Contract #: _____ Cal ID: ICP-TH-15-AUG-11

Analytes	MDL	RL	Concentration	Dilution	Qualifier
Arsenic, Total	2.50	5.00	2.50	1	U
Cadmium, Total	0.250	0.500	0.250	1	U

MDL Method Detection Limit
RL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name: BLANK
PDF ID: 2113462
23-AUG-2011 13:09



Microbac Laboratories Inc.
METHOD BLANK REPORT

Login Number: L11080332 Prep Date: 08/15/11 10:23 Sample ID: WG373200-02
Instrument ID: ICP-THERMO2 Run Date: 08/18/11 14:40 Prep Method: 3051A
File ID: T2.081811.144054 Analyst: PDM Method: 6010B
Workgroup (AAB#): WG373583 Matrix: Soil Units: mg/kg
Contract #: _____ Cal ID: ICP-TH-18-AUG-11

Analytes	MDL	RL	Concentration	Dilution	Qualifier
Arsenic, Total	2.50	5.00	2.50	1	U
Cadmium, Total	0.250	0.500	0.250	1	U

MDL Method Detection Limit
RL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name: BLANK
PDF ID: 2113462
23-AUG-2011 13:09



Microbac Laboratories Inc.
METHOD BLANK REPORT

Login Number: L11080332 Prep Date: 08/12/11 08:53 Sample ID: WG373033-02
Instrument ID: ICP-THERMO2 Run Date: 08/22/11 14:31 Prep Method: 3051A
File ID: T2.082211.143140 Analyst: KHR Method: 6010B
Workgroup (AAB#): WG373116 Matrix: Soil Units: mg/kg
Contract #: _____ Cal ID: ICP-TH-22-AUG-11

Analytes	MDL	RL	Concentration	Dilution	Qualifier
Arsenic, Total	2.50	5.00	2.50	1	U
Cadmium, Total	0.250	0.500	0.250	1	U

MDL Method Detection Limit
RL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name: BLANK
PDF ID: 2113462
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Microbac Laboratories Inc.
METHOD BLANK REPORT

Login Number: L11080332 Prep Date: 08/15/11 07:47 Sample ID: WG373152-02
Instrument ID: ICP-THERMO2 Run Date: 08/22/11 16:34 Prep Method: 3051A
File ID: T2.082211.163432 Analyst: KHR Method: 6010B
Workgroup (AAB#): WG373849 Matrix: Soil Units: mg/kg
Contract #: _____ Cal ID: ICP-TH-22-AUG-11

Analytes	MDL	RL	Concentration	Dilution	Qualifier
Arsenic, Total	2.50	5.00	2.50	1	U
Cadmium, Total	0.250	0.500	0.250	1	U

MDL Method Detection Limit
RL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name: BLANK
PDF ID: 2113462
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Microbac Laboratories Inc.
METHOD BLANK REPORT

Login Number: L11080332 Prep Date: 08/15/11 07:32 Sample ID: WG373151-02
Instrument ID: ICP-THERMO2 Run Date: 08/22/11 18:32 Prep Method: 3051A
File ID: T2.082211.183256 Analyst: KHR Method: 6010B
Workgroup (AAB#): WG373847 Matrix: Soil Units: mg/kg
Contract #: _____ Cal ID: ICP-TH-22-AUG-11

Analytes	MDL	RL	Concentration	Dilution	Qualifier
Arsenic, Total	2.50	5.00	2.50	1	U
Cadmium, Total	0.250	0.500	0.250	1	U

MDL Method Detection Limit
RL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name: BLANK
PDF ID: 2113462
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Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L11080332 Run Date: 08/11/2011 Sample ID: WG372883-03
 Instrument ID: ICP-THERMO2 Run Time: 12:57 Prep Method: 3051A
 File ID: T2.081111.125703 Analyst: JYH Method: 6010B
 Workgroup (AAB#): WG372936 Matrix: Soil Units: mg/kg
 QC Key: WATERLOO Lot#: STD46535 Cal ID: ICP-TH-11-AUG-11

Analytes	Expected	Found	% Rec	LCS Limits	Q
Arsenic, Total	10.0	9.43	94.3	80 - 120	
Cadmium, Total	1.25	1.21	96.8	80 - 120	

LCS - Modified 03/06/2008
 PDF File ID: 2113463
 Report generated: 08/23/2011 13:09



Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L11080332 Run Date: 08/15/2011 Sample ID: WG373087-03
Instrument ID: ICP-THERMO2 Run Time: 22:13 Prep Method: 3051A
File ID: T2.081511.221311 Analyst: PDM Method: 6010B
Workgroup (AAB#): WG373241 Matrix: Soil Units: mg/kg
QC Key: WATERLOO Lot#: STD46535 Cal ID: ICP-TH-15-AUG-11

Analytes	Expected	Found	% Rec	LCS Limits	Q
Arsenic, Total	10.0	9.75	97.5	80 - 120	
Cadmium, Total	1.25	1.24	99.4	80 - 120	

LCS - Modified 03/06/2008
PDF File ID: 2113463
Report generated: 08/23/2011 13:09



Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L11080332 Run Date: 08/18/2011 Sample ID: WG373200-03
Instrument ID: ICP-THERMO2 Run Time: 14:44 Prep Method: 3051A
File ID: T2.081811.144418 Analyst: PDM Method: 6010B
Workgroup (AAB#): WG373583 Matrix: Soil Units: mg/kg
QC Key: WATERLOO Lot#: STD47047 Cal ID: ICP-TH-18-AUG-11

Analytes	Expected	Found	% Rec	LCS Limits	Q
Arsenic, Total	10.0	8.94	89.4	80 - 120	
Cadmium, Total	1.25	1.15	92.1	80 - 120	

LCS - Modified 03/06/2008
PDF File ID: 2113463
Report generated: 08/23/2011 13:09



Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L11080332 Run Date: 08/22/2011 Sample ID: WG373033-03
Instrument ID: ICP-THERMO2 Run Time: 14:35 Prep Method: 3051A
File ID: T2.082211.143507 Analyst: KHR Method: 6010B
Workgroup (AAB#): WG373116 Matrix: Soil Units: mg/kg
QC Key: WATERLOO Lot#: STD46535 Cal ID: ICP-TH-22-AUG-11

Analytes	Expected	Found	% Rec	LCS Limits	Q
Arsenic, Total	10.0	9.21	92.1	80 - 120	
Cadmium, Total	1.25	1.17	93.2	80 - 120	

LCS - Modified 03/06/2008
PDF File ID: 2113463
Report generated: 08/23/2011 13:09



Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L11080332 Run Date: 08/22/2011 Sample ID: WG373152-03
Instrument ID: ICP-THERMO2 Run Time: 16:38 Prep Method: 3051A
File ID: T2.082211.163800 Analyst: KHR Method: 6010B
Workgroup (AAB#): WG373849 Matrix: Soil Units: mg/kg
QC Key: WATERLOO Lot#: STD47047 Cal ID: ICP-TH-22-AUG-11

Analytes	Expected	Found	% Rec	LCS Limits	Q
Arsenic, Total	10.0	9.32	93.2	80 - 120	
Cadmium, Total	1.25	1.18	94.7	80 - 120	

LCS - Modified 03/06/2008
PDF File ID: 2113463
Report generated: 08/23/2011 13:09



Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L11080332 Run Date: 08/22/2011 Sample ID: WG373151-03
Instrument ID: ICP-THERMO2 Run Time: 18:36 Prep Method: 3051A
File ID: T2.082211.183624 Analyst: KHR Method: 6010B
Workgroup (AAB#): WG373847 Matrix: Soil Units: mg/kg
QC Key: WATERLOO Lot#: STD46535 Cal ID: ICP-TH-22-AUG-11

Analytes	Expected	Found	% Rec	LCS Limits	Q
Arsenic, Total	10.0	9.33	93.3	80 - 120	
Cadmium, Total	1.25	1.18	94.5	80 - 120	

LCS - Modified 03/06/2008
PDF File ID: 2113463
Report generated: 08/23/2011 13:09



MS/MSD REPORT

Loginum: L11080332 Cal ID: ICP-THERMO2- 11-AUG-11 Worknum: WG372936
 Instrument ID: ICP-THERMO2 Contract #: _____ Prep Method: 3051A
 Parent ID: L11080332-03 File ID: T2.081111.132554 Dil: 1 Method: 6010B
 Sample ID: L11080332-04 MS File ID: T2.081111.132908 Dil: 1 Matrix: Soil
 Sample ID: L11080332-05 MSD File ID: T2.081111.133224 Dil: 1 Units: mg/kg
 Percent Solid: 89.1

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Arsenic, Total	3.74	7.90	11.2	94.3	7.90	10.9	90.8	2.44	80 - 120	20	
Cadmium, Total	1.05	0.988	2.12	108	0.988	1.93	89.4	9.22	80 - 120	20	

* FAILS %REC LIMIT

FAILS RPD LIMIT



MS/MSD REPORT

Loginum: L11080332 Cal ID: ICP-THERMO2- 22-AUG-11 Worknum: WG373116
 Instrument ID: ICP-THERMO2 Contract #: _____ Prep Method: 3051A
 Parent ID: L11080332-19 File ID: T2.082211.160735 Dil: 1 Method: 6010B
 Sample ID: L11080332-20 MS File ID: T2.082211.161103 Dil: 1 Matrix: Soil
 Sample ID: L11080332-21 MSD File ID: T2.082211.161429 Dil: 1 Units: mg/kg
 Percent Solid: 84.8

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Arsenic, Total	4.65	8.82	11.3	75.5	8.82	12.4	87.9	9.20	80 - 120	20	*
Cadmium, Total	0.529	1.10	1.60	96.8	1.10	1.41	80.4	12.0	80 - 120	20	

* FAILS %REC LIMIT

FAILS RPD LIMIT



MS/MSD REPORT

Loginum: L11080332 Cal ID: ICP-THERMO2- 15-AUG-11 Worknum: WG373241
 Instrument ID: ICP-THERMO2 Contract #: _____ Prep Method: 3051A
 Parent ID: L11080332-30 File ID: T2.081511.231623 Dil: 1 Method: 6010B
 Sample ID: L11080332-31 MS File ID: T2.081511.231940 Dil: 1 Matrix: Soil
 Sample ID: L11080332-32 MSD File ID: T2.081511.232942 Dil: 1 Units: mg/kg
 Percent Solid: 79.9

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Arsenic, Total	60.2	9.16	89.5	320	9.16	79.4	209	12.0	80 - 120	20	*
Cadmium, Total	U	1.14	1.18	103	1.14	1.19	104	0.424	80 - 120	20	

* FAILS %REC LIMIT

FAILS RPD LIMIT

MS/MSD REPORT

Loginum: L11080332 Cal ID: ICP-THERMO2- 22-AUG-11 Worknum: WG373847
 Instrument ID: ICP-THERMO2 Contract #: _____ Prep Method: 3051A
 Parent ID: L11080332-58 File ID: T2.082211.200628 Dil: 1 Method: 6010B
 Sample ID: L11080332-59 MS File ID: T2.082211.200938 Dil: 1 Matrix: Soil
 Sample ID: L11080332-60 MSD File ID: T2.082211.201256 Dil: 1 Units: mg/kg
 Percent Solid: 79.8

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Arsenic, Total	12.8	8.86	18.4	62.7	8.86	16.1	37.5	13.0	80 - 120	20	*
Cadmium, Total	8.67	1.11	9.99	120	1.11	5.57	-279	56.8	80 - 120	20	*#

* FAILS %REC LIMIT

FAILS RPD LIMIT

MS/MSD REPORT

Loginum: L11080332 Cal ID: ICP-THERMO2- 22-AUG-11 Worknum: WG373849
 Instrument ID: ICP-THERMO2 Contract #: _____ Prep Method: 3051A
 Parent ID: L11080332-65 File ID: T2.082211.171457 Dil: 1 Method: 6010B
 Sample ID: L11080332-66 MS File ID: T2.082211.171818 Dil: 1 Matrix: Soil
 Sample ID: L11080332-67 MSD File ID: T2.082211.172135 Dil: 1 Units: mg/kg
 Percent Solid: 90.6

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Arsenic, Total	4.40	8.13	10.9	79.6	8.13	10.5	75.5	3.10	80 - 120	20	*
Cadmium, Total	U	1.02	0.903	88.9	1.02	0.891	87.7	1.40	80 - 120	20	

* FAILS %REC LIMIT

FAILS RPD LIMIT

Microbac Laboratories Inc.
MS REPORT

Loginum: L11080332 Cal ID: ICP-THERMO - 15-AUG-11 Worknum: WG373241
Instrument ID: ICP-THERMO Contract #: _____ Method: 6010B
Parent ID: L11080332-30 File ID: T2.081511.231623 Dil: 1 Matrix: Solid
Sample ID: L11080332-31 MS File ID: T2.081511.231940 Dil: 1 Units: mg/kg
Sample ID: L11080332-32 MSD File ID: T2.081511.232942 Dil: 1 Percent Solid: 79.9

Analyte	Parent	MS Spiked	MS Found	MS %Rec
Arsenic, Total	60.2	9.16	89.5	320
Cadmium, Total	ND	1.14	1.18	104

* EXCEEDS %REC LIMIT

EXCEEDS RPD LIMIT

SAMPLE_MS - Modified 06/27/2008
PDF File ID: 2121240
Report generated: 08/19/2011 10:07



Microbac Laboratories Inc.
MS REPORT

Loginum: L11080332 Cal ID: ICP-THERMO 15-AUG-11 Worknum: WG373241
 Instrument ID: ICP-THERMO Contract #: _____ Method: 6010B
 Parent ID: L11080332-30 File ID: T2.081511.231623 Dil: 1 Matrix: Solid
 Sample ID: L11080332-31 MS File ID: T2.081511.231940 Dil: 1 Units: mg/kg
 Sample ID: L11080332-32 MSD File ID: T2.081511.232942 Dil: 1 Percent Solid: 79.9

Analyte	Parent	MSD Spiked	MSD Found	MSD %Rec	%Rec Limits	Q
Arsenic, Total		9.16	79.4	210	80 - 120	*
Cadmium, Total		1.14	1.19	104	80 - 120	

* EXCEEDS %REC LIMIT

EXCEEDS RPD LIMIT



Microbac Laboratories Inc.
MS REPORT

Loginum: L11080332 Cal ID: ICP-THERMO - 11-AUG-11 Worknum: WG372936
Instrument ID: ICP-THERMO Contract #: _____ Method: 6010B
Parent ID: L11080332-03 File ID: T2.081111.132554 Dil: 1 Matrix: Solid
Sample ID: L11080332-04 MS File ID: T2.081111.132908 Dil: 1 Units: mg/kg
Sample ID: L11080332-05 MSD File ID: T2.081111.133224 Dil: 1 Percent Solid: 89.1

Analyte	Parent	MS Spiked	MS Found	MS %Rec
Arsenic, Total	3.74	7.90	11.2	94.4
Cadmium, Total	1.05	0.988	2.12	108

* EXCEEDS %REC LIMIT

EXCEEDS RPD LIMIT

SAMPLE_MS - Modified 06/27/2008
PDF File ID: 2121240
Report generated: 08/19/2011 10:07



Microbac Laboratories Inc.
MS REPORT

Loginum: L11080332 Cal ID: ICP-THERMO 11-AUG-11 Worknum: WG372936
 Instrument ID: ICP-THERMO Contract #: _____ Method: 6010B
 Parent ID: L11080332-03 File ID: T2.081111.132554 Dil: 1 Matrix: Solid
 Sample ID: L11080332-04 MS File ID: T2.081111.132908 Dil: 1 Units: mg/kg
 Sample ID: L11080332-05 MSD File ID: T2.081111.133224 Dil: 1 Percent Solid: 89.1

Analyte	Parent	MSD Spiked	MSD Found	MSD %Rec	%Rec Limits	Q
Arsenic, Total		7.90	10.9	90.6	80 - 120	
Cadmium, Total		0.988	1.93	89.1	80 - 120	

* EXCEEDS %REC LIMIT
EXCEEDS RPD LIMIT



MATRIX SPIKE AND MATRIX SPIKE DUP (MS/MSD)

Loginnum: L11080332 Cal ID: ICP-THERMO2 - Worknum: WG373847
 Instrument ID: ICP-THERMO2 Contract #: Method: 6010B
 Parent ID: WG373151-01 File ID: T2.082211.200628 Dil: 1 Matrix: SOLID
 Sample ID: WG373151-04 MS File ID: T2.082211.200938 Dil: 1 Units: mg/kg
 Sample ID: WG373151-05 MSD File ID: T2.082211.201256 Dil: 1 Percent Solid: 79.8

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Arsenic, Total	12.8	8.86	18.4	62.7	8.86	16.1	37.5	13.0	80 - 120	20	*
Cadmium, Total	8.67	1.11	9.99	120	1.11	5.57	-279	56.8	80 - 120	20	*#

* FAILS %REC LIMIT

FAILS RPD LIMIT

NOTE: This is an internal quality control sample.

MATRIX SPIKE AND MATRIX SPIKE DUP (MS/MSD)

Loginnum: L11080332 Cal ID: ICP-THERMO2 - Worknum: WG373583
 Instrument ID: ICP-THERMO2 Contract #: _____ Method: 6010B
 Parent ID: WG373200-01 File ID: T2.081811.162536 Dil: 1 Matrix: SOLID
 Sample ID: WG373200-04 MS File ID: T2.081811.162849 Dil: 1 Units: mg/kg
 Sample ID: WG373200-05 MSD File ID: T2.081811.163158 Dil: 1 Percent Solid: 94.3

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Arsenic, Total	4.14	7.75	10.0	75.6	7.75	9.99	75.4	0.171	80 - 120	20	*
Cadmium, Total	0.897	0.969	1.21	32.0	0.969	1.26	37.4	4.18	80 - 120	20	*

* FAILS %REC LIMIT

FAILS RPD LIMIT

NOTE: This is an internal quality control sample.

MATRIX SPIKE AND MATRIX SPIKE DUP (MS/MSD)

Loginnum: L11080332 Cal ID: ICP-THERMO2 - Worknum: WG372936
 Instrument ID: ICP-THERMO2 Contract #: _____ Method: 6010B
 Parent ID: WG372883-01 File ID: T2.081111.132554 Dil: 1 Matrix: SOLID
 Sample ID: WG372883-04 MS File ID: T2.081111.132908 Dil: 1 Units: mg/kg
 Sample ID: WG372883-05 MSD File ID: T2.081111.133224 Dil: 1 Percent Solid: 89.1

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Arsenic, Total	3.74	7.90	11.2	94.3	7.90	10.9	90.8	2.44	80 - 120	20	
Cadmium, Total	1.05	0.988	2.12	108	0.988	1.93	89.4	9.22	80 - 120	20	

* FAILS %REC LIMIT

FAILS RPD LIMIT

NOTE: This is an internal quality control sample.

MATRIX SPIKE AND MATRIX SPIKE DUP (MS/MSD)

Loginnum: L11080332 Cal ID: ICP-THERMO2 - Worknum: WG373116
 Instrument ID: ICP-THERMO2 Contract #: _____ Method: 6010B
 Parent ID: WG373033-01 File ID: T2.082211.160735 Dil: 1 Matrix: SOLID
 Sample ID: WG373033-04 MS File ID: T2.082211.161103 Dil: 1 Units: mg/kg
 Sample ID: WG373033-05 MSD File ID: T2.082211.161429 Dil: 1 Percent Solid: 84.8

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Arsenic, Total	4.65	8.82	11.3	75.5	8.82	12.4	87.9	9.20	80 - 120	20	*
Cadmium, Total	0.529	1.10	1.60	96.8	1.10	1.41	80.4	12.0	80 - 120	20	

* FAILS %REC LIMIT

FAILS RPD LIMIT

NOTE: This is an internal quality control sample.

MATRIX SPIKE AND MATRIX SPIKE DUP (MS/MSD)

Loginnum: L11080332 Cal ID: ICP-THERMO2- Worknum: WG373241
 Instrument ID: ICP-THERMO2 Contract #: _____ Method: 6010B
 Parent ID: WG373087-01 File ID: T2.081511.231623 Dil: 1 Matrix: SOLID
 Sample ID: WG373087-04 MS File ID: T2.081511.231940 Dil: 1 Units: mg/kg
 Sample ID: WG373087-05 MSD File ID: T2.081511.232942 Dil: 1 Percent Solid: 79.9

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Arsenic, Total	60.2	9.16	89.5	320	9.16	79.4	209	12.0	80 - 120	20	*
Cadmium, Total	ND	1.14	1.18	103	1.14	1.19	104	0.424	80 - 120	20	

* FAILS %REC LIMIT

FAILS RPD LIMIT

NOTE: This is an internal quality control sample.

MATRIX SPIKE AND MATRIX SPIKE DUP (MS/MSD)

Loginnum: L11080332 Cal ID: ICP-THERMO2 - Worknum: WG373849
 Instrument ID: ICP-THERMO2 Contract #: _____ Method: 6010B
 Parent ID: WG373152-01 File ID: T2.082211.171457 Dil: 1 Matrix: SOLID
 Sample ID: WG373152-04 MS File ID: T2.082211.171818 Dil: 1 Units: mg/kg
 Sample ID: WG373152-05 MSD File ID: T2.082211.172135 Dil: 1 Percent Solid: 90.6

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Arsenic, Total	4.40	8.13	10.9	79.6	8.13	10.5	75.5	3.10	80 - 120	20	*
Cadmium, Total	ND	1.02	0.903	88.9	1.02	0.891	87.7	1.40	80 - 120	20	

* FAILS %REC LIMIT

FAILS RPD LIMIT

NOTE: This is an internal quality control sample.

Microbac Laboratories Inc.
Serial Dilution Report

Login: L11080332 Worknum: WG373241
Instrument: ICP-THERMO2 Method: 6010B
Serial Dil: WG373241-02 File ID: T2.081511.222311 Dil: 5 Units: mg/L
Sample: L11080332-14 File ID: T2.081511.221623 Dil: 1

Analyte	Sample	Qual	Serial Dil	Qual	% Diff	Q
Arsenic	1.55	X	1.70	X	9.79	
Cadmium	0.422		0.476		12.60	E

U = Result is below MDL.

F = Result is greater than or equal to MDL and less than the RL.

X = Result is greater than or equal to RL and less than 50 times the MDL.

E = %D exceeds control limit of 10% and initial sample result is greater than or equal to 50 times the MDL.

SERIAL_DIL - Modified 09/22/2008

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Microbac Laboratories Inc.
Serial Dilution Report

Login: L11080332 Worknum: WG373847
Instrument: ICP-THERMO2 Method: 6010B
Serial Dil: WG373847-02 File ID: T2.082211.184621 Dil: 5 Units: mg/L
Sample: L11080332-38 File ID: T2.082211.183939 Dil: 1

Analyte	Sample	Qual	Serial Dil	Qual	% Diff	Q
Arsenic	0.107	X	ND	U		
Cadmium	0.00775	F	ND	U		

U = Result is below MDL.

F = Result is greater than or equal to MDL and less than the RL.

X = Result is greater than or equal to RL and less than 50 times the MDL.

E = %D exceeds control limit of 10% and initial sample result is greater than or equal to 50 times the MDL.

SERIAL_DIL - Modified 09/22/2008

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Microbac Laboratories Inc.
Serial Dilution Report

Login: L11080332 Worknum: WG373583
Instrument: ICP-THERMO2 Method: 6010B
Serial Dil: WG373583-04 File ID: T2.082211.130645 Dil: 10 Units: mg/L
Sample: L11080437-01 File ID: T2.082211.130020 Dil: 2

Analyte	Sample	Qual	Serial Dil	Qual	% Diff	Q
Arsenic	0.427	X	ND	U		
Cadmium	0.0768	X	0.0817	F	6.35	

U = Result is below MDL.

F = Result is greater than or equal to MDL and less than the RL.

X = Result is greater than or equal to RL and less than 50 times the MDL.

E = %D exceeds control limit of 10% and initial sample result is greater than or equal to 50 times the MDL.

SERIAL_DIL - Modified 09/22/2008

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Microbac Laboratories Inc.
Serial Dilution Report

Login: L11080332 Worknum: WG373849
Instrument: ICP-THERMO2 Method: 6010B
Serial Dil: WG373849-02 File ID: T2.082211.164817 Dil: 5 Units: mg/L
Sample: L11080332-57 File ID: T2.082211.164114 Dil: 1

Analyte	Sample	Qual	Serial Dil	Qual	% Diff	Q
Arsenic	0.704	X	0.735	X	4.32	
Cadmium	2.95		3.10		4.78	

U = Result is below MDL.

F = Result is greater than or equal to MDL and less than the RL.

X = Result is greater than or equal to RL and less than 50 times the MDL.

E = %D exceeds control limit of 10% and initial sample result is greater than or equal to 50 times the MDL.

SERIAL_DIL - Modified 09/22/2008

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Microbac Laboratories Inc.
Serial Dilution Report

Login: L11080332 Worknum: WG372936
Instrument: ICP-THERMO2 Method: 6010B
Serial Dil: WG372936-02 File ID: T2.081111.134216 Dil: 5 Units: mg/L
Sample: L11080332-03 File ID: T2.081111.132554 Dil: 1

Analyte	Sample	Qual	Serial Dil	Qual	% Diff	Q
Arsenic	0.0947	F	ND	U		
Cadmium	0.0265	X	0.0325	F	22.50	

U = Result is below MDL.

F = Result is greater than or equal to MDL and less than the RL.

X = Result is greater than or equal to RL and less than 50 times the MDL.

E = %D exceeds control limit of 10% and initial sample result is greater than or equal to 50 times the MDL.

SERIAL_DIL - Modified 09/22/2008

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Microbac Laboratories Inc.
Serial Dilution Report

Login: L11080332 Worknum: WG373116
Instrument: ICP-THERMO2 Method: 6010B
Serial Dil: WG373116-02 File ID: T2.082211.144833 Dil: 5 Units: mg/L
Sample: L11080300-13 File ID: T2.082211.144151 Dil: 1

Analyte	Sample	Qual	Serial Dil	Qual	% Diff	Q
Arsenic	0.0771	F	ND	U		
Cadmium	ND	U	ND	U		

U = Result is below MDL.

F = Result is greater than or equal to MDL and less than the RL.

X = Result is greater than or equal to RL and less than 50 times the MDL.

E = %D exceeds control limit of 10% and initial sample result is greater than or equal to 50 times the MDL.

SERIAL_DIL - Modified 09/22/2008

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Microbac Laboratories Inc.
Serial Dilution Report

Login: L11080332 Worknum: WG373583
Instrument: ICP-THERMO2 Method: 6010B
Serial Dil: WG373583-02 File ID: T2.081811.145411 Dil: 5 Units: mg/L
Sample: L11080332-82 File ID: T2.081811.144731 Dil: 1

Analyte	Sample	Qual	Serial Dil	Qual	% Diff	Q
Arsenic	0.0806	F	ND	U		
Cadmium	0.00671	F	ND	U		

U = Result is below MDL.

F = Result is greater than or equal to MDL and less than the RL.

X = Result is greater than or equal to RL and less than 50 times the MDL.

E = %D exceeds control limit of 10% and initial sample result is greater than or equal to 50 times the MDL.

SERIAL_DIL - Modified 09/22/2008

PDF File ID: 2113458

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Microbac Laboratories Inc.
POST SPIKE REPORT

Sample Login ID: L11080332 Worknum: WG372936
 Instrument ID: ICP-THERMO2 Method: 6010B
 Post Spike ID: WG372936-01 File ID: T2.081111.133556 Dil: 1 Units: mg/L
 Sample ID: L11080332-03 File ID: T2.081111.132554 Dil: 1 Matrix: Soil

Analyte	Post Spike Result	C	Sample Result	C	Spike Added(SA)	% R	Control Limit %R	Q
ARSENIC	0.272		0.0947	F	.2	93.2	75 - 125	
CADMIUM	0.0469		0.0265		.025	92.2	75 - 125	

N = % Recovery exceeds control limits
 F = Result is between MDL and RL
 U = Sample result is below MDL. A value of zero is used in the calculation

POST_SPIKE - Modified 03/06/2008
 PDF File ID: 2113459
 Report generated: 08/23/2011 13:09



Microbac Laboratories Inc.
POST SPIKE REPORT

Sample Login ID: L11080332

Worknum: WG373116

Instrument ID: ICP-THERMO2

Method: 6010B

Post Spike ID: WG373116-01

File ID: T2.082211.144514

Dil: 1

Units: mg/L

Sample ID: L11080300-13

File ID: T2.082211.144151

Dil: 1

Matrix: Soil

Analyte	Post Spike Result	C	Sample Result	C	Spike Added(SA)	% R	Control Limit %R	Q
ARSENIC	0.254		0.0771	F	.2	92.5	75 - 125	
CADMIUM	0.0247		0	U	.025	98.7	75 - 125	

N = % Recovery exceeds control limits

F = Result is between MDL and RL

U = Sample result is below MDL. A value of zero is used in the calculation

POST_SPIKE - Modified 03/06/2008
PDF File ID: 2113459
Report generated: 08/23/2011 13:09



Microbac Laboratories Inc.
POST SPIKE REPORT

Sample Login ID: L11080332 Worknum: WG373241
 Instrument ID: ICP-THERMO2 Method: 6010B
 Post Spike ID: WG373241-01 File ID: T2.081511.221947 Dil: 1 Units: mg/L
 Sample ID: L11080332-14 File ID: T2.081511.221623 Dil: 1 Matrix: Soil

Analyte	Post Spike Result	C	Sample Result	C	Spike Added(SA)	% R	Control Limit %R	Q
ARSENIC	1.57		1.55		.2	86.4	75 - 125	
CADMIUM	0.402		0.422		.025	86.1	75 - 125	

N = % Recovery exceeds control limits
 F = Result is between MDL and RL
 U = Sample result is below MDL. A value of zero is used in the calculation

POST_SPIKE - Modified 03/06/2008
 PDF File ID: 2113459
 Report generated: 08/23/2011 13:09



Microbac Laboratories Inc.
POST SPIKE REPORT

Sample Login ID: L11080332 Worknum: WG373583
 Instrument ID: ICP-THERMO2 Method: 6010B
 Post Spike ID: WG373583-01 File ID: T2.081811.145053 Dil: 1 Units: mg/L
 Sample ID: L11080332-82 File ID: T2.081811.144731 Dil: 1 Matrix: Soil

Analyte	Post Spike Result	C	Sample Result	C	Spike Added(SA)	% R	Control Limit %R	Q
ARSENIC	0.233		0.0806	F	.2	80.1	75 - 125	
CADMIUM	0.0262		0.00671	F	.025	80.6	75 - 125	

N = % Recovery exceeds control limits
 F = Result is between MDL and RL
 U = Sample result is below MDL. A value of zero is used in the calculation

POST_SPIKE - Modified 03/06/2008
 PDF File ID: 2113459
 Report generated: 08/23/2011 13:09



Microbac Laboratories Inc.
POST SPIKE REPORT

Sample Login ID: L11080332

Worknum: WG373583

Instrument ID: ICP-THERMO2

Method: 6010B

Post Spike ID: WG373583-03

File ID: T2.082211.130335

Dil: 2

Units: mg/L

Sample ID: L11080437-01

File ID: T2.082211.130020

Dil: 2

Matrix: Soil

Analyte	Post Spike Result	C	Sample Result	C	Spike Added(SA)	% R	Control Limit %R	Q
ARSENIC	0.408		0.213		.2	97.2	75 - 125	
CADMIUM	0.0623		0.0384		.025	95.6	75 - 125	

N = % Recovery exceeds control limits

F = Result is between MDL and RL

U = Sample result is below MDL. A value of zero is used in the calculation

POST_SPIKE - Modified 03/06/2008
PDF File ID: 2113459
Report generated: 08/23/2011 13:09



Microbac Laboratories Inc.
POST SPIKE REPORT

Sample Login ID: L11080332

Worknum: WG373847

Instrument ID: ICP-THERMO2

Method: 6010B

Post Spike ID: WG373847-01

File ID: T2.082211.184301

Dil: 1

Units: mg/L

Sample ID: L11080332-38

File ID: T2.082211.183939

Dil: 1

Matrix: Soil

Analyte	Post Spike Result	C	Sample Result	C	Spike Added(SA)	% R	Control Limit %R	Q
ARSENIC	0.285		0.107		.2	94.2	75 - 125	
CADMIUM	0.0303		0.00775	F	.025	93.3	75 - 125	

N = % Recovery exceeds control limits

F = Result is between MDL and RL

U = Sample result is below MDL. A value of zero is used in the calculation

POST_SPIKE - Modified 03/06/2008
PDF File ID: 2113459
Report generated: 08/23/2011 13:09



Microbac Laboratories Inc.
POST SPIKE REPORT

Sample Login ID: L11080332 Worknum: WG373849
 Instrument ID: ICP-THERMO2 Method: 6010B
 Post Spike ID: WG373849-01 File ID: T2.082211.164451 Dil: 1 Units: mg/L
 Sample ID: L11080332-57 File ID: T2.082211.164114 Dil: 1 Matrix: Soil

Analyte	Post Spike Result	C	Sample Result	C	Spike Added(SA)	% R	Control Limit %R	Q
ARSENIC	0.830		0.704		.2	98.2	75 - 125	
CADMIUM	2.69		2.95		.025	122.5	75 - 125	

N = % Recovery exceeds control limits
 F = Result is between MDL and RL
 U = Sample result is below MDL. A value of zero is used in the calculation

POST_SPIKE - Modified 03/06/2008
 PDF File ID: 2113459
 Report generated: 08/23/2011 13:09



Microbac Laboratories Inc.
Initial Calibration Summary

Login: L11080332 Workgroup (AAB#): WG372936
 Analytical Method: 6010B Instrument ID: ICP-THERMO2
 ICAL Worknum: WG372983 Initial Calibration Date: 11-AUG-2011 12:31

	WG372983-01		WG372983-02		WG372983-03		WG372983-04		WG372983-05		R	Q
	Conc	INT	Conc	INT	Conc	INT	Conc	INT	Conc	INT		
ARSENIC	0	-0.000240	NA	NA	.008	0.0000700	.4	0.0147	.8	0.0297	.999994	
CADMIUM	0	0.000180	.0005	0.000480	.001	0.000910	.05	0.0380	.1	0.0755	.999943	

INT = Instrument intensity
 R = Coefficient of correlation
 Q = Data Qualifier
 * = Out of Compliance; R < 0.995



Microbac Laboratories Inc.
Initial Calibration Summary

Login: L11080332 Workgroup (AAB#): WG373241
 Analytical Method: 6010B Instrument ID: ICP-THERMO2
 ICAL Worknum: WG373289 Initial Calibration Date: 15-AUG-2011 16:22

	WG373289-01		WG373289-02		WG373289-03		WG373289-04		WG373289-05		R	Q
	Conc	INT	Conc	INT	Conc	INT	Conc	INT	Conc	INT		
ARSENIC	0	-0.000210	NA	NA	.008	0.0000600	.4	0.0135	.8	0.0269	.999986	
CADMIUM	0	0.000120	.0005	0.000440	.001	0.000860	.05	0.0368	.1	0.0729	.999966	

INT = Instrument intensity
 R = Coefficient of correlation
 Q = Data Qualifier
 * = Out of Compliance; R < 0.995



Microbac Laboratories Inc.
Initial Calibration Summary

Login: L11080332 Workgroup (AAB#): WG373583
 Analytical Method: 6010B Instrument ID: ICP-THERMO2
 ICAL Worknum: WG373676 Initial Calibration Date: 18-AUG-2011 10:51

	WG373676-01		WG373676-02		WG373676-03		WG373676-04		WG373676-05		R	Q
	Conc	INT	Conc	INT	Conc	INT	Conc	INT	Conc	INT		
ARSENIC	0	-0.000320	NA	NA	.008	0.0000800	.4	0.0176	.8	0.0358	.999954	
CADMIUM	0	0.000220	.0005	0.000760	.001	0.00120	.05	0.0478	.1	0.0955	.999958	

INT = Instrument intensity
 R = Coefficient of correlation
 Q = Data Qualifier
 * = Out of Compliance; R < 0.995



Microbac Laboratories Inc.
Initial Calibration Summary

Login: L11080332 Workgroup (AAB#): WG373116
 Analytical Method: 6010B Instrument ID: ICP-THERMO2
 ICAL Worknum: WG373833 Initial Calibration Date: 22-AUG-2011 10:16

	WG373833-01		WG373833-02		WG373833-03		WG373833-04		WG373833-05		R	Q
	Conc	INT	Conc	INT	Conc	INT	Conc	INT	Conc	INT		
ARSENIC	0	-0.000210	NA	NA	.008	0.0000700	.4	0.0130	.8	0.0260	.999986	
CADMIUM	0	0.000110	.0005	0.000480	.001	0.000920	.05	0.0353	.1	0.0702	.999912	

INT = Instrument intensity
 R = Coefficient of correlation
 Q = Data Qualifier
 * = Out of Compliance; R < 0.995



Microbac Laboratories Inc.
Initial Calibration Summary

Login: L11080332 Workgroup (AAB#): WG373583
 Analytical Method: 6010B Instrument ID: ICP-THERMO2
 ICAL Worknum: WG373833 Initial Calibration Date: 22-AUG-2011 10:16

	WG373833-01		WG373833-02		WG373833-03		WG373833-04		WG373833-05		R	Q
	Conc	INT	Conc	INT	Conc	INT	Conc	INT	Conc	INT		
ARSENIC	0	-0.000210	NA	NA	.008	0.0000700	.4	0.0130	.8	0.0260	.999986	
CADMIUM	0	0.000110	.0005	0.000480	.001	0.000920	.05	0.0353	.1	0.0702	.999912	

INT = Instrument intensity
 R = Coefficient of correlation
 Q = Data Qualifier
 * = Out of Compliance; R < 0.995



Microbac Laboratories Inc.
Initial Calibration Summary

Login: L11080332 Workgroup (AAB#): WG373847
Analytical Method: 6010B Instrument ID: ICP-THERMO2
ICAL Worknum: WG373833 Initial Calibration Date: 22-AUG-2011 10:16

	WG373833-01		WG373833-02		WG373833-03		WG373833-04		WG373833-05		R	Q
	Conc	INT	Conc	INT	Conc	INT	Conc	INT	Conc	INT		
ARSENIC	0	-0.000210	NA	NA	.008	0.0000700	.4	0.0130	.8	0.0260	.999986	
CADMIUM	0	0.000110	.0005	0.000480	.001	0.000920	.05	0.0353	.1	0.0702	.999912	

INT = Instrument intensity
R = Coefficient of correlation
Q = Data Qualifier
* = Out of Compliance; R < 0.995



Microbac Laboratories Inc.
Initial Calibration Summary

Login: L11080332 Workgroup (AAB#): WG373849
 Analytical Method: 6010B Instrument ID: ICP-THERMO2
 ICAL Worknum: WG373833 Initial Calibration Date: 22-AUG-2011 10:16

	WG373833-01		WG373833-02		WG373833-03		WG373833-04		WG373833-05		R	Q
	Conc	INT	Conc	INT	Conc	INT	Conc	INT	Conc	INT		
ARSENIC	0	-0.000210	NA	NA	.008	0.0000700	.4	0.0130	.8	0.0260	.999986	
CADMIUM	0	0.000110	.0005	0.000480	.001	0.000920	.05	0.0353	.1	0.0702	.999912	

INT = Instrument intensity
 R = Coefficient of correlation
 Q = Data Qualifier
 * = Out of Compliance; R < 0.995



Microbac Laboratories Inc.
Initial Calibration Summary

Login: L11080332 Workgroup (AAB#): WG373116
 Analytical Method: 6010B Instrument ID: ICP-THERMO2
 ICAL Worknum: WG373942 Initial Calibration Date: 23-AUG-2011 08:52

	WG373942-01		WG373942-02		WG373942-03		WG373942-04		WG373942-05		R	Q
	Conc	INT	Conc	INT	Conc	INT	Conc	INT	Conc	INT		
ARSENIC	0	-0.000150	NA	NA	.008	0.0000400	.4	0.0128	.8	0.0255	.999756	
CADMIUM	0	0.000130	.0005	0.000560	.001	0.000820	.05	0.0343	.1	0.0682	.999859	

INT = Instrument intensity
 R = Coefficient of correlation
 Q = Data Qualifier
 * = Out of Compliance; R < 0.995



Microbac Laboratories Inc.
INITIAL CALIBRATION BLANK (ICB)

Login Number: L11080332 Run Date: 08/11/2011 Sample ID: WG372983-07
Instrument ID: ICP-THERMO2 Run Time: 12:37 Method: 6010B
File ID: T2.081111.123726 Analyst: JYH Units: mg/L
Workgroup (AAB#): WG372936 Cal ID: ICP-THERM - 11-AUG-11
Matrix: SOIL

Analytes	MDL	RDL	Concentration	Qualifier
ARSENIC	.05	.1	.05	U
CADMIUM	.005	.01	.005	U

ICB - Modified 07/14/2009
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Microbac Laboratories Inc.
INITIAL CALIBRATION BLANK (ICB)

Login Number: L11080332 Run Date: 08/22/2011 Sample ID: WG373833-07
Instrument ID: ICP-THERMO2 Run Time: 10:22 Method: 6010B
File ID: T2.082211.102246 Analyst: KHR Units: mg/L
Workgroup (AAB#): WG373116 Cal ID: ICP-THERM - 22-AUG-11
Matrix: SOIL

Analytes	MDL	RDL	Concentration	Qualifier
ARSENIC	.05	.1	.05	U
CADMIUM	.005	.01	.005	U

ICB - Modified 07/14/2009
PDF File ID: 2113470
Report generated 08/23/2011 13:09



Microbac Laboratories Inc.
INITIAL CALIBRATION BLANK (ICB)

Login Number: L11080332 Run Date: 08/23/2011 Sample ID: WG373942-07
Instrument ID: ICP-THERMO2 Run Time: 08:58 Method: 6010B
File ID: T2.082311.085856 Analyst: JYH Units: mg/L
Workgroup (AAB#): WG373116 Cal ID: ICP-THERM - 23-AUG-11
Matrix: SOIL

Analytes	MDL	RDL	Concentration	Qualifier
ARSENIC	.05	.1	.05	U
CADMIUM	.005	.01	.005	U

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Microbac Laboratories Inc.
INITIAL CALIBRATION BLANK (ICB)

Login Number: L11080332 Run Date: 08/15/2011 Sample ID: WG373289-07
Instrument ID: ICP-THERMO2 Run Time: 16:29 Method: 6010B
File ID: T2.081511.162918 Analyst: PDM Units: mg/L
Workgroup (AAB#): WG373241 Cal ID: ICP-THERM - 15-AUG-11
Matrix: SOIL

Analytes	MDL	RDL	Concentration	Qualifier
ARSENIC	.05	.1	.05	U
CADMIUM	.005	.01	.005	U

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Microbac Laboratories Inc.
INITIAL CALIBRATION BLANK (ICB)

Login Number: L11080332 Run Date: 08/18/2011 Sample ID: WG373676-07
Instrument ID: ICP-THERMO2 Run Time: 10:58 Method: 6010B
File ID: T2.081811.105828 Analyst: PDM Units: mg/L
Workgroup (AAB#): WG373583 Cal ID: ICP-THERM - 18-AUG-11
Matrix: SOIL

Analytes	MDL	RDL	Concentration	Qualifier
ARSENIC	.05	.1	.05	U
CADMIUM	.005	.01	.005	U

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Microbac Laboratories Inc.
INITIAL CALIBRATION BLANK (ICB)

Login Number: L11080332 Run Date: 08/22/2011 Sample ID: WG373833-07
Instrument ID: ICP-THERMO2 Run Time: 10:22 Method: 6010B
File ID: T2.082211.102246 Analyst: KHR Units: mg/L
Workgroup (AAB#): WG373583 Cal ID: ICP-THERI - 22-AUG-11
Matrix: SOIL

Analytes	MDL	RDL	Concentration	Qualifier
ARSENIC	.05	.1	.05	U
CADMIUM	.005	.01	.005	U

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Microbac Laboratories Inc.
INITIAL CALIBRATION BLANK (ICB)

Login Number: L11080332 Run Date: 08/22/2011 Sample ID: WG373833-07
Instrument ID: ICP-THERMO2 Run Time: 10:22 Method: 6010B
File ID: T2.082211.102246 Analyst: KHR Units: mg/L
Workgroup (AAB#): WG373847 Cal ID: ICP-THERI - 22-AUG-11
Matrix: SOIL

Analytes	MDL	RDL	Concentration	Qualifier
ARSENIC	.05	.1	.05	U
CADMIUM	.005	.01	.005	U

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Microbac Laboratories Inc.
INITIAL CALIBRATION BLANK (ICB)

Login Number: L11080332 Run Date: 08/22/2011 Sample ID: WG373833-07
Instrument ID: ICP-THERMO2 Run Time: 10:22 Method: 6010B
File ID: T2.082211.102246 Analyst: KHR Units: mg/L
Workgroup (AAB#): WG373849 Cal ID: ICP-THERI - 22-AUG-11
Matrix: SOIL

Analytes	MDL	RDL	Concentration	Qualifier
ARSENIC	.05	.1	.05	U
CADMIUM	.005	.01	.005	U

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CONTINUING CALIBRATION BLANK (CCB)

Login Number: L11080332 Run Date: 08/11/2011 Sample ID: WG372983-11
Instrument ID: ICP-THERMO2 Run Time: 12:50 Method: 6010B
File ID: T2.081111.125017 Analyst: JYH Units: mg/L
Workgroup (AAB#): WG372936 Cal ID: ICP-TH - 11-AUG-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

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Microbac Laboratories Inc.
CONTINUING CALIBRATION BLANK (CCB)

Login Number: L11080332 Run Date: 08/11/2011 Sample ID: WG372983-13
Instrument ID: ICP-THERMO2 Run Time: 13:16 Method: 6010B
File ID: T2.081111.131607 Analyst: JYH Units: mg/L
Workgroup (AAB#): WG372936 Cal ID: ICP-TH - 11-AUG-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

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Microbac Laboratories Inc.
CONTINUING CALIBRATION BLANK (CCB)

Login Number: L11080332 Run Date: 08/11/2011 Sample ID: WG372983-15
Instrument ID: ICP-THERMO2 Run Time: 13:55 Method: 6010B
File ID: T2.081111.135511 Analyst: JYH Units: mg/L
Workgroup (AAB#): WG372936 Cal ID: ICP-TH - 11-AUG-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

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CONTINUING CALIBRATION BLANK (CCB)

Login Number: L11080332 Run Date: 08/11/2011 Sample ID: WG372983-19
Instrument ID: ICP-THERMO2 Run Time: 14:32 Method: 6010B
File ID: T2.081111.143244 Analyst: JYH Units: mg/L
Workgroup (AAB#): WG372936 Cal ID: ICP-TH - 11-AUG-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

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CONTINUING CALIBRATION BLANK (CCB)

Login Number: L11080332 Run Date: 08/22/2011 Sample ID: WG373833-11
Instrument ID: ICP-THERMO2 Run Time: 10:36 Method: 6010B
File ID: T2.082211.103606 Analyst: KHR Units: mg/L
Workgroup (AAB#): WG373116 Cal ID: ICP-TH - 22-AUG-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

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CONTINUING CALIBRATION BLANK (CCB)

Login Number: L11080332 Run Date: 08/22/2011 Sample ID: WG373833-23
Instrument ID: ICP-THERMO2 Run Time: 14:28 Method: 6010B
File ID: T2.082211.142807 Analyst: KHR Units: mg/L
Workgroup (AAB#): WG373116 Cal ID: ICP-TH - 22-AUG-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

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CONTINUING CALIBRATION BLANK (CCB)

Login Number: L11080332 Run Date: 08/22/2011 Sample ID: WG373833-25
Instrument ID: ICP-THERMO2 Run Time: 15:08 Method: 6010B
File ID: T2.082211.150844 Analyst: KHR Units: mg/L
Workgroup (AAB#): WG373116 Cal ID: ICP-TH - 22-AUG-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

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Microbac Laboratories Inc.
CONTINUING CALIBRATION BLANK (CCB)

Login Number: L11080332 Run Date: 08/22/2011 Sample ID: WG373833-27
Instrument ID: ICP-THERMO2 Run Time: 15:50 Method: 6010B
File ID: T2.082211.155003 Analyst: KHR Units: mg/L
Workgroup (AAB#): WG373116 Cal ID: ICP-TH - 22-AUG-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

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CONTINUING CALIBRATION BLANK (CCB)

Login Number: L11080332 Run Date: 08/22/2011 Sample ID: WG373833-31
Instrument ID: ICP-THERMO2 Run Time: 16:31 Method: 6010B
File ID: T2.082211.163103 Analyst: KHR Units: mg/L
Workgroup (AAB#): WG373116 Cal ID: ICP-TH - 22-AUG-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

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Microbac Laboratories Inc.
CONTINUING CALIBRATION BLANK (CCB)

Login Number: L11080332 Run Date: 08/22/2011 Sample ID: WG373833-35
Instrument ID: ICP-THERMO2 Run Time: 17:52 Method: 6010B
File ID: T2.082211.175214 Analyst: KHR Units: mg/L
Workgroup (AAB#): WG373116 Cal ID: ICP-TH - 22-AUG-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

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Microbac Laboratories Inc.
CONTINUING CALIBRATION BLANK (CCB)

Login Number: L11080332 Run Date: 08/22/2011 Sample ID: WG373833-39
Instrument ID: ICP-THERMO2 Run Time: 18:29 Method: 6010B
File ID: T2.082211.182923 Analyst: KHR Units: mg/L
Workgroup (AAB#): WG373116 Cal ID: ICP-TH - 22-AUG-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

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Microbac Laboratories Inc.
CONTINUING CALIBRATION BLANK (CCB)

Login Number: L11080332 Run Date: 08/22/2011 Sample ID: WG373833-45
Instrument ID: ICP-THERMO2 Run Time: 20:19 Method: 6010B
File ID: T2.082211.201924 Analyst: KHR Units: mg/L
Workgroup (AAB#): WG373116 Cal ID: ICP-TH - 22-AUG-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

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Microbac Laboratories Inc.
CONTINUING CALIBRATION BLANK (CCB)

Login Number: L11080332 Run Date: 08/22/2011 Sample ID: WG373833-49
Instrument ID: ICP-THERMO2 Run Time: 20:59 Method: 6010B
File ID: T2.082211.205944 Analyst: KHR Units: mg/L
Workgroup (AAB#): WG373116 Cal ID: ICP-TH - 22-AUG-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

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PDF File ID: 2113473
Report generated 08/23/2011 13:10



Microbac Laboratories Inc.
CONTINUING CALIBRATION BLANK (CCB)

Login Number: L11080332 Run Date: 08/23/2011 Sample ID: WG373942-11
Instrument ID: ICP-THERMO2 Run Time: 09:12 Method: 6010B
File ID: T2.082311.091216 Analyst: JYH Units: mg/L
Workgroup (AAB#): WG373116 Cal ID: ICP-TH - 23-AUG-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 2113473
Report generated 08/23/2011 13:10



Microbac Laboratories Inc.
CONTINUING CALIBRATION BLANK (CCB)

Login Number: L11080332 Run Date: 08/23/2011 Sample ID: WG373942-19
Instrument ID: ICP-THERMO2 Run Time: 11:36 Method: 6010B
File ID: T2.082311.113629 Analyst: JYH Units: mg/L
Workgroup (AAB#): WG373116 Cal ID: ICP-TH - 23-AUG-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 2113473
Report generated 08/23/2011 13:10



Microbac Laboratories Inc.
CONTINUING CALIBRATION BLANK (CCB)

Login Number: L11080332 Run Date: 08/23/2011 Sample ID: WG373942-23
Instrument ID: ICP-THERMO2 Run Time: 12:16 Method: 6010B
File ID: T2.082311.121606 Analyst: JYH Units: mg/L
Workgroup (AAB#): WG373116 Cal ID: ICP-TH - 23-AUG-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

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PDF File ID: 2113473
Report generated 08/23/2011 13:10



Microbac Laboratories Inc.
CONTINUING CALIBRATION BLANK (CCB)

Login Number: L11080332 Run Date: 08/15/2011 Sample ID: WG373289-11
Instrument ID: ICP-THERMO2 Run Time: 16:42 Method: 6010B
File ID: T2.081511.164231 Analyst: PDM Units: mg/L
Workgroup (AAB#): WG373241 Cal ID: ICP-TH - 15-AUG-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 2113473
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Microbac Laboratories Inc.
CONTINUING CALIBRATION BLANK (CCB)

Login Number: L11080332 Run Date: 08/15/2011 Sample ID: WG373289-29
Instrument ID: ICP-THERMO2 Run Time: 22:06 Method: 6010B
File ID: T2.081511.220623 Analyst: PDM Units: mg/L
Workgroup (AAB#): WG373241 Cal ID: ICP-TH - 15-AUG-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 2113473
Report generated 08/23/2011 13:10



Microbac Laboratories Inc.
CONTINUING CALIBRATION BLANK (CCB)

Login Number: L11080332 Run Date: 08/15/2011 Sample ID: WG373289-31
Instrument ID: ICP-THERMO2 Run Time: 22:45 Method: 6010B
File ID: T2.081511.224555 Analyst: PDM Units: mg/L
Workgroup (AAB#): WG373241 Cal ID: ICP-TH - 15-AUG-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

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Login Number: L11080332 Run Date: 08/15/2011 Sample ID: WG373289-33
Instrument ID: ICP-THERMO2 Run Time: 23:26 Method: 6010B
File ID: T2.081511.232613 Analyst: PDM Units: mg/L
Workgroup (AAB#): WG373241 Cal ID: ICP-TH - 15-AUG-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

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Login Number: L11080332 Run Date: 08/16/2011 Sample ID: WG373289-37
Instrument ID: ICP-THERMO2 Run Time: 00:01 Method: 6010B
File ID: T2.081611.000140 Analyst: PDM Units: mg/L
Workgroup (AAB#): WG373241 Cal ID: ICP-TH - 15-AUG-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

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Login Number: L11080332 Run Date: 08/16/2011 Sample ID: WG373289-66
Instrument ID: ICP-THERMO2 Run Time: 08:50 Method: 6010B
File ID: T2.081611.085028 Analyst: PDM Units: mg/L
Workgroup (AAB#): WG373241 Cal ID: ICP-TH - 15-AUG-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

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Login Number: L11080332 Run Date: 08/16/2011 Sample ID: WG373289-68
Instrument ID: ICP-THERMO2 Run Time: 09:17 Method: 6010B
File ID: T2.081611.091744 Analyst: PDM Units: mg/L
Workgroup (AAB#): WG373241 Cal ID: ICP-TH - 15-AUG-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

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Login Number: L11080332 Run Date: 08/18/2011 Sample ID: WG373676-11
Instrument ID: ICP-THERMO2 Run Time: 11:11 Method: 6010B
File ID: T2.081811.111144 Analyst: PDM Units: mg/L
Workgroup (AAB#): WG373583 Cal ID: ICP-TH - 18-AUG-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

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Login Number: L11080332 Run Date: 08/18/2011 Sample ID: WG373676-23
Instrument ID: ICP-THERMO2 Run Time: 14:37 Method: 6010B
File ID: T2.081811.143725 Analyst: PDM Units: mg/L
Workgroup (AAB#): WG373583 Cal ID: ICP-TH - 18-AUG-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

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Login Number: L11080332 Run Date: 08/18/2011 Sample ID: WG373676-25
Instrument ID: ICP-THERMO2 Run Time: 15:16 Method: 6010B
File ID: T2.081811.151658 Analyst: PDM Units: mg/L
Workgroup (AAB#): WG373583 Cal ID: ICP-TH - 18-AUG-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

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Login Number: L11080332 Run Date: 08/18/2011 Sample ID: WG373676-27
Instrument ID: ICP-THERMO2 Run Time: 16:05 Method: 6010B
File ID: T2.081811.160549 Analyst: PDM Units: mg/L
Workgroup (AAB#): WG373583 Cal ID: ICP-TH - 18-AUG-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

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Login Number: L11080332 Run Date: 08/18/2011 Sample ID: WG373676-31
Instrument ID: ICP-THERMO2 Run Time: 16:44 Method: 6010B
File ID: T2.081811.164456 Analyst: PDM Units: mg/L
Workgroup (AAB#): WG373583 Cal ID: ICP-TH - 18-AUG-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

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Login Number: L11080332 Run Date: 08/22/2011 Sample ID: WG373833-11
Instrument ID: ICP-THERMO2 Run Time: 10:36 Method: 6010B
File ID: T2.082211.103606 Analyst: KHR Units: mg/L
Workgroup (AAB#): WG373583 Cal ID: ICP-TH - 22-AUG-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

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Login Number: L11080332 Run Date: 08/22/2011 Sample ID: WG373833-17
Instrument ID: ICP-THERMO2 Run Time: 12:33 Method: 6010B
File ID: T2.082211.123329 Analyst: KHR Units: mg/L
Workgroup (AAB#): WG373583 Cal ID: ICP-TH - 22-AUG-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

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Login Number: L11080332 Run Date: 08/22/2011 Sample ID: WG373833-19
Instrument ID: ICP-THERMO2 Run Time: 13:13 Method: 6010B
File ID: T2.082211.131324 Analyst: KHR Units: mg/L
Workgroup (AAB#): WG373583 Cal ID: ICP-TH - 22-AUG-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

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Login Number: L11080332 Run Date: 08/22/2011 Sample ID: WG373833-27
Instrument ID: ICP-THERMO2 Run Time: 15:50 Method: 6010B
File ID: T2.082211.155003 Analyst: KHR Units: mg/L
Workgroup (AAB#): WG373583 Cal ID: ICP-TH - 22-AUG-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

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Login Number: L11080332 Run Date: 08/22/2011 Sample ID: WG373833-31
Instrument ID: ICP-THERMO2 Run Time: 16:31 Method: 6010B
File ID: T2.082211.163103 Analyst: KHR Units: mg/L
Workgroup (AAB#): WG373583 Cal ID: ICP-TH - 22-AUG-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

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Login Number: L11080332 Run Date: 08/22/2011 Sample ID: WG373833-35
Instrument ID: ICP-THERMO2 Run Time: 17:52 Method: 6010B
File ID: T2.082211.175214 Analyst: KHR Units: mg/L
Workgroup (AAB#): WG373583 Cal ID: ICP-TH - 22-AUG-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

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Login Number: L11080332 Run Date: 08/22/2011 Sample ID: WG373833-39
Instrument ID: ICP-THERMO2 Run Time: 18:29 Method: 6010B
File ID: T2.082211.182923 Analyst: KHR Units: mg/L
Workgroup (AAB#): WG373583 Cal ID: ICP-TH - 22-AUG-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

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Login Number: L11080332 Run Date: 08/22/2011 Sample ID: WG373833-45
Instrument ID: ICP-THERMO2 Run Time: 20:19 Method: 6010B
File ID: T2.082211.201924 Analyst: KHR Units: mg/L
Workgroup (AAB#): WG373583 Cal ID: ICP-TH - 22-AUG-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

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Login Number: L11080332 Run Date: 08/22/2011 Sample ID: WG373833-49
Instrument ID: ICP-THERMO2 Run Time: 20:59 Method: 6010B
File ID: T2.082211.205944 Analyst: KHR Units: mg/L
Workgroup (AAB#): WG373583 Cal ID: ICP-TH - 22-AUG-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

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Login Number: L11080332 Run Date: 08/22/2011 Sample ID: WG373833-11
Instrument ID: ICP-THERMO2 Run Time: 10:36 Method: 6010B
File ID: T2.082211.103606 Analyst: KHR Units: mg/L
Workgroup (AAB#): WG373847 Cal ID: ICP-TH - 22-AUG-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

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Login Number: L11080332 Run Date: 08/22/2011 Sample ID: WG373833-27
Instrument ID: ICP-THERMO2 Run Time: 15:50 Method: 6010B
File ID: T2.082211.155003 Analyst: KHR Units: mg/L
Workgroup (AAB#): WG373847 Cal ID: ICP-TH - 22-AUG-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

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Login Number: L11080332 Run Date: 08/22/2011 Sample ID: WG373833-31
Instrument ID: ICP-THERMO2 Run Time: 16:31 Method: 6010B
File ID: T2.082211.163103 Analyst: KHR Units: mg/L
Workgroup (AAB#): WG373847 Cal ID: ICP-TH - 22-AUG-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

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Login Number: L11080332 Run Date: 08/22/2011 Sample ID: WG373833-35
Instrument ID: ICP-THERMO2 Run Time: 17:52 Method: 6010B
File ID: T2.082211.175214 Analyst: KHR Units: mg/L
Workgroup (AAB#): WG373847 Cal ID: ICP-TH - 22-AUG-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

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Login Number: L11080332 Run Date: 08/22/2011 Sample ID: WG373833-39
Instrument ID: ICP-THERMO2 Run Time: 18:29 Method: 6010B
File ID: T2.082211.182923 Analyst: KHR Units: mg/L
Workgroup (AAB#): WG373847 Cal ID: ICP-TH - 22-AUG-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

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Login Number: L11080332 Run Date: 08/22/2011 Sample ID: WG373833-41
Instrument ID: ICP-THERMO2 Run Time: 19:09 Method: 6010B
File ID: T2.082211.190922 Analyst: KHR Units: mg/L
Workgroup (AAB#): WG373847 Cal ID: ICP-TH - 22-AUG-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

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Login Number: L11080332 Run Date: 08/22/2011 Sample ID: WG373833-43
Instrument ID: ICP-THERMO2 Run Time: 19:49 Method: 6010B
File ID: T2.082211.194914 Analyst: KHR Units: mg/L
Workgroup (AAB#): WG373847 Cal ID: ICP-TH - 22-AUG-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

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Login Number: L11080332 Run Date: 08/22/2011 Sample ID: WG373833-45
Instrument ID: ICP-THERMO2 Run Time: 20:19 Method: 6010B
File ID: T2.082211.201924 Analyst: KHR Units: mg/L
Workgroup (AAB#): WG373847 Cal ID: ICP-TH - 22-AUG-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

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Login Number: L11080332 Run Date: 08/22/2011 Sample ID: WG373833-49
Instrument ID: ICP-THERMO2 Run Time: 20:59 Method: 6010B
File ID: T2.082211.205944 Analyst: KHR Units: mg/L
Workgroup (AAB#): WG373847 Cal ID: ICP-TH - 22-AUG-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

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Login Number: L11080332 Run Date: 08/22/2011 Sample ID: WG373833-11
Instrument ID: ICP-THERMO2 Run Time: 10:36 Method: 6010B
File ID: T2.082211.103606 Analyst: KHR Units: mg/L
Workgroup (AAB#): WG373849 Cal ID: ICP-TH - 22-AUG-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

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Login Number: L11080332 Run Date: 08/22/2011 Sample ID: WG373833-27
Instrument ID: ICP-THERMO2 Run Time: 15:50 Method: 6010B
File ID: T2.082211.155003 Analyst: KHR Units: mg/L
Workgroup (AAB#): WG373849 Cal ID: ICP-TH - 22-AUG-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

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Login Number: L11080332 Run Date: 08/22/2011 Sample ID: WG373833-31
Instrument ID: ICP-THERMO2 Run Time: 16:31 Method: 6010B
File ID: T2.082211.163103 Analyst: KHR Units: mg/L
Workgroup (AAB#): WG373849 Cal ID: ICP-TH - 22-AUG-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

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Login Number: L11080332 Run Date: 08/22/2011 Sample ID: WG373833-33
Instrument ID: ICP-THERMO2 Run Time: 17:11 Method: 6010B
File ID: T2.082211.171128 Analyst: KHR Units: mg/L
Workgroup (AAB#): WG373849 Cal ID: ICP-TH - 22-AUG-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

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CONTINUING CALIBRATION BLANK (CCB)

Login Number: L11080332 Run Date: 08/22/2011 Sample ID: WG373833-35
Instrument ID: ICP-THERMO2 Run Time: 17:52 Method: 6010B
File ID: T2.082211.175214 Analyst: KHR Units: mg/L
Workgroup (AAB#): WG373849 Cal ID: ICP-TH - 22-AUG-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

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PDF File ID: 2113473
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Microbac Laboratories Inc.
CONTINUING CALIBRATION BLANK (CCB)

Login Number: L11080332 Run Date: 08/22/2011 Sample ID: WG373833-39
Instrument ID: ICP-THERMO2 Run Time: 18:29 Method: 6010B
File ID: T2.082211.182923 Analyst: KHR Units: mg/L
Workgroup (AAB#): WG373849 Cal ID: ICP-TH - 22-AUG-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

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Report generated 08/23/2011 13:10



Microbac Laboratories Inc.
CONTINUING CALIBRATION BLANK (CCB)

Login Number: L11080332 Run Date: 08/22/2011 Sample ID: WG373833-45
Instrument ID: ICP-THERMO2 Run Time: 20:19 Method: 6010B
File ID: T2.082211.201924 Analyst: KHR Units: mg/L
Workgroup (AAB#): WG373849 Cal ID: ICP-TH - 22-AUG-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

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Microbac Laboratories Inc.
CONTINUING CALIBRATION BLANK (CCB)

Login Number: L11080332 Run Date: 08/22/2011 Sample ID: WG373833-49
Instrument ID: ICP-THERMO2 Run Time: 20:59 Method: 6010B
File ID: T2.082211.205944 Analyst: KHR Units: mg/L
Workgroup (AAB#): WG373849 Cal ID: ICP-TH - 22-AUG-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 2113473
Report generated 08/23/2011 13:10



Microbac Laboratories Inc.
INITIAL CALIBRATION VERIFICATION (ICV)
(Alternate Source)

Login Number: L11080332 Run Date: 08/11/2011 Sample ID: WG372983-06
Instrument ID: ICP-THERMO2 Run Time: 12:34 Method: 6010B
File ID: T2.081111.123419 Analyst: JYH Units: mg/L
Workgroup (AAB#): WG372936 Cal ID: ICP-TH - 11-AUG-11
QC Key: WATERLOO

Analyte	Expected	Found	%REC	LIMITS	Q
Arsenic	.4	0.399	99.7	90 - 110	
Cadmium	.05	0.0501	100	90 - 110	

* Exceeds LIMITS Limit

ICV - Modified 03/06/2008
PDF File ID: 2113469
Report generated 08/23/2011 13:09



Microbac Laboratories Inc.
INITIAL CALIBRATION VERIFICATION (ICV)
(Alternate Source)

Login Number: L11080332 Run Date: 08/23/2011 Sample ID: WG373942-06
Instrument ID: ICP-THERMO2 Run Time: 08:55 Method: 6010B
File ID: T2.082311.085543 Analyst: JYH Units: mg/L
Workgroup (AAB#): WG373116 Cal ID: ICP-TH - 23-AUG-11
QC Key: WATERLOO

Analyte	Expected	Found	%REC	LIMITS	Q
Arsenic	.4	0.399	99.9	90 - 110	
Cadmium	.05	0.0504	101	90 - 110	

* Exceeds LIMITS Limit

ICV - Modified 03/06/2008
PDF File ID: 2113469
Report generated 08/23/2011 13:09



Microbac Laboratories Inc.
INITIAL CALIBRATION VERIFICATION (ICV)
(Alternate Source)

Login Number: L11080332 Run Date: 08/22/2011 Sample ID: WG373833-06
Instrument ID: ICP-THERMO2 Run Time: 10:19 Method: 6010B
File ID: T2.082211.101934 Analyst: KHR Units: mg/L
Workgroup (AAB#): WG373116 Cal ID: ICP-TH - 22-AUG-11
QC Key: WATERLOO

Analyte	Expected	Found	%REC	LIMITS	Q
Arsenic	.4	0.402	100	90 - 110	
Cadmium	.05	0.0504	101	90 - 110	

* Exceeds LIMITS Limit

ICV - Modified 03/06/2008
PDF File ID: 2113469
Report generated 08/23/2011 13:09



Microbac Laboratories Inc.
INITIAL CALIBRATION VERIFICATION (ICV)
(Alternate Source)

Login Number: L11080332 Run Date: 08/15/2011 Sample ID: WG373289-06
Instrument ID: ICP-THERMO2 Run Time: 16:26 Method: 6010B
File ID: T2.081511.162605 Analyst: PDM Units: mg/L
Workgroup (AAB#): WG373241 Cal ID: ICP-TH - 15-AUG-11
QC Key: WATERLOO

Analyte	Expected	Found	%REC	LIMITS	Q
Arsenic	.4	0.400	100	90 - 110	
Cadmium	.05	0.0505	101	90 - 110	

* Exceeds LIMITS Limit

ICV - Modified 03/06/2008
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Report generated 08/23/2011 13:09



Microbac Laboratories Inc.
 INITIAL CALIBRATION VERIFICATION (ICV)
 (Alternate Source)

Login Number: L11080332 Run Date: 08/18/2011 Sample ID: WG373676-06
 Instrument ID: ICP-THERMO2 Run Time: 10:55 Method: 6010B
 File ID: T2.081811.105515 Analyst: PDM Units: mg/L
 Workgroup (AAB#): WG373583 Cal ID: ICP-TH - 18-AUG-11
 QC Key: WATERLOO

Analyte	Expected	Found	%REC	LIMITS	Q
Arsenic	.4	0.399	99.8	90 - 110	
Cadmium	.05	0.0501	100	90 - 110	

* Exceeds LIMITS Limit



Microbac Laboratories Inc.
INITIAL CALIBRATION VERIFICATION (ICV)
(Alternate Source)

Login Number: L11080332 Run Date: 08/22/2011 Sample ID: WG373833-06
Instrument ID: ICP-THERMO2 Run Time: 10:19 Method: 6010B
File ID: T2.082211.101934 Analyst: KHR Units: mg/L
Workgroup (AAB#): WG373583 Cal ID: ICP-TH - 22-AUG-11
QC Key: WATERLOO

Analyte	Expected	Found	%REC	LIMITS	Q
Arsenic	.4	0.402	100	90 - 110	
Cadmium	.05	0.0504	101	90 - 110	

* Exceeds LIMITS Limit

ICV - Modified 03/06/2008
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Microbac Laboratories Inc.
INITIAL CALIBRATION VERIFICATION (ICV)
(Alternate Source)

Login Number: L11080332 Run Date: 08/22/2011 Sample ID: WG373833-06
Instrument ID: ICP-THERMO2 Run Time: 10:19 Method: 6010B
File ID: T2.082211.101934 Analyst: KHR Units: mg/L
Workgroup (AAB#): WG373847 Cal ID: ICP-TH - 22-AUG-11
QC Key: WATERLOO

Analyte	Expected	Found	%REC	LIMITS	Q
Arsenic	.4	0.402	100	90 - 110	
Cadmium	.05	0.0504	101	90 - 110	

* Exceeds LIMITS Limit

ICV - Modified 03/06/2008
PDF File ID: 2113469
Report generated 08/23/2011 13:09



Microbac Laboratories Inc.
INITIAL CALIBRATION VERIFICATION (ICV)
(Alternate Source)

Login Number: L11080332 Run Date: 08/22/2011 Sample ID: WG373833-06
Instrument ID: ICP-THERMO2 Run Time: 10:19 Method: 6010B
File ID: T2.082211.101934 Analyst: KHR Units: mg/L
Workgroup (AAB#): WG373849 Cal ID: ICP-TH - 22-AUG-11
QC Key: WATERLOO

Analyte	Expected	Found	%REC	LIMITS	Q
Arsenic	.4	0.402	100	90 - 110	
Cadmium	.05	0.0504	101	90 - 110	

* Exceeds LIMITS Limit

ICV - Modified 03/06/2008
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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11080332 Run Date: 08/11/2011 Sample ID: WG372983-10
 Instrument ID: ICP-THERMO2 Run Time: 12:47 Method: 6010B
 File ID: T2.081111.124710 Analyst: JYH QC Key: WATERLOO
 Workgroup (AAB#): WG372936 Cal ID: ICP-TH - 11-AUG-11
 Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.396	mg/L	98.9	90 - 110	
Cadmium	0.0500	0.0497	mg/L	99.3	90 - 110	

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11080332 Run Date: 08/11/2011 Sample ID: WG372983-12
Instrument ID: ICP-THERMO2 Run Time: 13:13 Method: 6010B
File ID: T2.081111.131301 Analyst: JYH QC Key: WATERLOO
Workgroup (AAB#): WG372936 Cal ID: ICP-TH - 11-AUG-11
Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.393	mg/L	98.2	90 - 110	
Cadmium	0.0500	0.0495	mg/L	99.0	90 - 110	

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
PDF File ID: 2113472
Report generated 08/23/2011 13:10



Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11080332 Run Date: 08/11/2011 Sample ID: WG372983-14
Instrument ID: ICP-THERMO2 Run Time: 13:52 Method: 6010B
File ID: T2.081111.135203 Analyst: JYH QC Key: WATERLOO
Workgroup (AAB#): WG372936 Cal ID: ICP-TH - 11-AUG-11
Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.396	mg/L	99.1	90 - 110	
Cadmium	0.0500	0.0499	mg/L	99.8	90 - 110	

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
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Report generated 08/23/2011 13:10



Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11080332 Run Date: 08/11/2011 Sample ID: WG372983-18
 Instrument ID: ICP-THERMO2 Run Time: 14:29 Method: 6010B
 File ID: T2.081111.142937 Analyst: JYH QC Key: WATERLOO
 Workgroup (AAB#): WG372936 Cal ID: ICP-TH - 11-AUG-11
 Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.397	mg/L	99.2	90 - 110	
Cadmium	0.0500	0.0500	mg/L	99.9	90 - 110	

* Exceeds LIMITS Criteria

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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11080332 Run Date: 08/22/2011 Sample ID: WG373833-10
 Instrument ID: ICP-THERMO2 Run Time: 10:32 Method: 6010B
 File ID: T2.082211.103254 Analyst: KHR QC Key: WATERLOO
 Workgroup (AAB#): WG373116 Cal ID: ICP-TH - 22-AUG-11
 Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.400	mg/L	100	90 - 110	
Cadmium	0.0500	0.0501	mg/L	100	90 - 110	

* Exceeds LIMITS Criteria

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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11080332 Run Date: 08/22/2011 Sample ID: WG373833-22
 Instrument ID: ICP-THERMO2 Run Time: 14:24 Method: 6010B
 File ID: T2.082211.142455 Analyst: KHR QC Key: WATERLOO
 Workgroup (AAB#): WG373116 Cal ID: ICP-TH - 22-AUG-11
 Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.401	mg/L	100	90 - 110	
Cadmium	0.0500	0.0499	mg/L	99.9	90 - 110	

* Exceeds LIMITS Criteria

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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11080332 Run Date: 08/22/2011 Sample ID: WG373833-24
 Instrument ID: ICP-THERMO2 Run Time: 15:05 Method: 6010B
 File ID: T2.082211.150531 Analyst: KHR QC Key: WATERLOO
 Workgroup (AAB#): WG373116 Cal ID: ICP-TH - 22-AUG-11
 Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.396	mg/L	99.0	90 - 110	
Cadmium	0.0500	0.0495	mg/L	98.9	90 - 110	

* Exceeds LIMITS Criteria

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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11080332 Run Date: 08/22/2011 Sample ID: WG373833-26
 Instrument ID: ICP-THERMO2 Run Time: 15:46 Method: 6010B
 File ID: T2.082211.154651 Analyst: KHR QC Key: WATERLOO
 Workgroup (AAB#): WG373116 Cal ID: ICP-TH - 22-AUG-11
 Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.395	mg/L	98.8	90 - 110	
Cadmium	0.0500	0.0496	mg/L	99.3	90 - 110	

* Exceeds LIMITS Criteria

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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11080332 Run Date: 08/22/2011 Sample ID: WG373833-30
 Instrument ID: ICP-THERMO2 Run Time: 16:27 Method: 6010B
 File ID: T2.082211.162752 Analyst: KHR QC Key: WATERLOO
 Workgroup (AAB#): WG373116 Cal ID: ICP-TH - 22-AUG-11
 Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.399	mg/L	99.7	90 - 110	
Cadmium	0.0500	0.0499	mg/L	99.7	90 - 110	

* Exceeds LIMITS Criteria

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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11080332 Run Date: 08/22/2011 Sample ID: WG373833-34
Instrument ID: ICP-THERMO2 Run Time: 17:49 Method: 6010B
File ID: T2.082211.174902 Analyst: KHR QC Key: WATERLOO
Workgroup (AAB#): WG373116 Cal ID: ICP-TH - 22-AUG-11
Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.400	mg/L	100	90 - 110	
Cadmium	0.0500	0.0502	mg/L	100	90 - 110	

* Exceeds LIMITS Criteria

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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11080332 Run Date: 08/22/2011 Sample ID: WG373833-38
 Instrument ID: ICP-THERMO2 Run Time: 18:26 Method: 6010B
 File ID: T2.082211.182611 Analyst: KHR QC Key: WATERLOO
 Workgroup (AAB#): WG373116 Cal ID: ICP-TH - 22-AUG-11
 Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.400	mg/L	99.9	90 - 110	
Cadmium	0.0500	0.0502	mg/L	100	90 - 110	

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11080332 Run Date: 08/22/2011 Sample ID: WG373833-44
 Instrument ID: ICP-THERMO2 Run Time: 20:16 Method: 6010B
 File ID: T2.082211.201612 Analyst: KHR QC Key: WATERLOO
 Workgroup (AAB#): WG373116 Cal ID: ICP-TH - 22-AUG-11
 Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.398	mg/L	99.4	90 - 110	
Cadmium	0.0500	0.0501	mg/L	100	90 - 110	

* Exceeds LIMITS Criteria

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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11080332 Run Date: 08/22/2011 Sample ID: WG373833-48
 Instrument ID: ICP-THERMO2 Run Time: 20:56 Method: 6010B
 File ID: T2.082211.205632 Analyst: KHR QC Key: WATERLOO
 Workgroup (AAB#): WG373116 Cal ID: ICP-TH - 22-AUG-11
 Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.398	mg/L	99.5	90 - 110	
Cadmium	0.0500	0.0501	mg/L	100	90 - 110	

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
 PDF File ID: 2113472
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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11080332 Run Date: 08/23/2011 Sample ID: WG373942-10
 Instrument ID: ICP-THERMO2 Run Time: 09:09 Method: 6010B
 File ID: T2.082311.090901 Analyst: JYH QC Key: WATERLOO
 Workgroup (AAB#): WG373116 Cal ID: ICP-TH - 23-AUG-11
 Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.398	mg/L	99.5	90 - 110	
Cadmium	0.0500	0.0497	mg/L	99.5	90 - 110	

* Exceeds LIMITS Criteria



Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11080332 Run Date: 08/23/2011 Sample ID: WG373942-18
 Instrument ID: ICP-THERMO2 Run Time: 11:33 Method: 6010B
 File ID: T2.082311.113311 Analyst: JYH QC Key: WATERLOO
 Workgroup (AAB#): WG373116 Cal ID: ICP-TH - 23-AUG-11
 Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.399	mg/L	99.7	90 - 110	
Cadmium	0.0500	0.0500	mg/L	99.9	90 - 110	

* Exceeds LIMITS Criteria

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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11080332 Run Date: 08/23/2011 Sample ID: WG373942-22
 Instrument ID: ICP-THERMO2 Run Time: 12:12 Method: 6010B
 File ID: T2.082311.121252 Analyst: JYH QC Key: WATERLOO
 Workgroup (AAB#): WG373116 Cal ID: ICP-TH - 23-AUG-11
 Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.400	mg/L	99.9	90 - 110	
Cadmium	0.0500	0.0499	mg/L	99.9	90 - 110	

* Exceeds LIMITS Criteria



Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11080332 Run Date: 08/15/2011 Sample ID: WG373289-10
 Instrument ID: ICP-THERMO2 Run Time: 16:39 Method: 6010B
 File ID: T2.081511.163917 Analyst: PDM QC Key: WATERLOO
 Workgroup (AAB#): WG373241 Cal ID: ICP-TH - 15-AUG-11
 Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.397	mg/L	99.2	90 - 110	
Cadmium	0.0500	0.0501	mg/L	100	90 - 110	

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
 PDF File ID: 2113472
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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11080332 Run Date: 08/15/2011 Sample ID: WG373289-28
 Instrument ID: ICP-THERMO2 Run Time: 22:03 Method: 6010B
 File ID: T2.081511.220311 Analyst: PDM QC Key: WATERLOO
 Workgroup (AAB#): WG373241 Cal ID: ICP-TH - 15-AUG-11
 Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.412	mg/L	103	90 - 110	
Cadmium	0.0500	0.0521	mg/L	104	90 - 110	

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
 PDF File ID: 2113472
 Report generated 08/23/2011 13:10



Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11080332 Run Date: 08/15/2011 Sample ID: WG373289-30
 Instrument ID: ICP-THERMO2 Run Time: 22:42 Method: 6010B
 File ID: T2.081511.224241 Analyst: PDM QC Key: WATERLOO
 Workgroup (AAB#): WG373241 Cal ID: ICP-TH - 15-AUG-11
 Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.418	mg/L	104	90 - 110	
Cadmium	0.0500	0.0524	mg/L	105	90 - 110	

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
 PDF File ID: 2113472
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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11080332 Run Date: 08/15/2011 Sample ID: WG373289-32
 Instrument ID: ICP-THERMO2 Run Time: 23:23 Method: 6010B
 File ID: T2.081511.232301 Analyst: PDM QC Key: WATERLOO
 Workgroup (AAB#): WG373241 Cal ID: ICP-TH - 15-AUG-11
 Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.414	mg/L	104	90 - 110	
Cadmium	0.0500	0.0517	mg/L	103	90 - 110	

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11080332 Run Date: 08/15/2011 Sample ID: WG373289-36
 Instrument ID: ICP-THERMO2 Run Time: 23:58 Method: 6010B
 File ID: T2.081511.235827 Analyst: PDM QC Key: WATERLOO
 Workgroup (AAB#): WG373241 Cal ID: ICP-TH - 15-AUG-11
 Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.417	mg/L	104	90 - 110	
Cadmium	0.0500	0.0522	mg/L	104	90 - 110	

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
 PDF File ID: 2113472
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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11080332 Run Date: 08/16/2011 Sample ID: WG373289-65
Instrument ID: ICP-THERMO2 Run Time: 08:47 Method: 6010B
File ID: T2.081611.084716 Analyst: PDM QC Key: WATERLOO
Workgroup (AAB#): WG373241 Cal ID: ICP-TH - 15-AUG-11
Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.419	mg/L	105	90 - 110	
Cadmium	0.0500	0.0520	mg/L	104	90 - 110	

* Exceeds LIMITS Criteria

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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11080332 Run Date: 08/16/2011 Sample ID: WG373289-67
 Instrument ID: ICP-THERMO2 Run Time: 09:14 Method: 6010B
 File ID: T2.081611.091432 Analyst: PDM QC Key: WATERLOO
 Workgroup (AAB#): WG373241 Cal ID: ICP-TH - 15-AUG-11
 Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.421	mg/L	105	90 - 110	
Cadmium	0.0500	0.0519	mg/L	104	90 - 110	

* Exceeds LIMITS Criteria

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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11080332 Run Date: 08/18/2011 Sample ID: WG373676-10
 Instrument ID: ICP-THERMO2 Run Time: 11:08 Method: 6010B
 File ID: T2.081811.110830 Analyst: PDM QC Key: WATERLOO
 Workgroup (AAB#): WG373583 Cal ID: ICP-TH - 18-AUG-11
 Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.411	mg/L	103	90 - 110	
Cadmium	0.0500	0.0512	mg/L	102	90 - 110	

* Exceeds LIMITS Criteria

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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11080332 Run Date: 08/18/2011 Sample ID: WG373676-22
 Instrument ID: ICP-THERMO2 Run Time: 14:34 Method: 6010B
 File ID: T2.081811.143410 Analyst: PDM QC Key: WATERLOO
 Workgroup (AAB#): WG373583 Cal ID: ICP-TH - 18-AUG-11
 Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.398	mg/L	99.4	90 - 110	
Cadmium	0.0500	0.0499	mg/L	99.8	90 - 110	

* Exceeds LIMITS Criteria

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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11080332 Run Date: 08/18/2011 Sample ID: WG373676-24
 Instrument ID: ICP-THERMO2 Run Time: 15:13 Method: 6010B
 File ID: T2.081811.151344 Analyst: PDM QC Key: WATERLOO
 Workgroup (AAB#): WG373583 Cal ID: ICP-TH - 18-AUG-11
 Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.389	mg/L	97.3	90 - 110	
Cadmium	0.0500	0.0485	mg/L	97.0	90 - 110	

* Exceeds LIMITS Criteria

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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11080332 Run Date: 08/18/2011 Sample ID: WG373676-26
 Instrument ID: ICP-THERMO2 Run Time: 16:02 Method: 6010B
 File ID: T2.081811.160235 Analyst: PDM QC Key: WATERLOO
 Workgroup (AAB#): WG373583 Cal ID: ICP-TH - 18-AUG-11
 Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.393	mg/L	98.1	90 - 110	
Cadmium	0.0500	0.0493	mg/L	98.5	90 - 110	

* Exceeds LIMITS Criteria

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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11080332 Run Date: 08/18/2011 Sample ID: WG373676-30
Instrument ID: ICP-THERMO2 Run Time: 16:41 Method: 6010B
File ID: T2.081811.164141 Analyst: PDM QC Key: WATERLOO
Workgroup (AAB#): WG373583 Cal ID: ICP-TH - 18-AUG-11
Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.382	mg/L	95.5	90 - 110	
Cadmium	0.0500	0.0483	mg/L	96.5	90 - 110	

* Exceeds LIMITS Criteria

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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11080332 Run Date: 08/22/2011 Sample ID: WG373833-10
 Instrument ID: ICP-THERMO2 Run Time: 10:32 Method: 6010B
 File ID: T2.082211.103254 Analyst: KHR QC Key: WATERLOO
 Workgroup (AAB#): WG373583 Cal ID: ICP-TH - 22-AUG-11
 Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.400	mg/L	100	90 - 110	
Cadmium	0.0500	0.0501	mg/L	100	90 - 110	

* Exceeds LIMITS Criteria

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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11080332 Run Date: 08/22/2011 Sample ID: WG373833-16
 Instrument ID: ICP-THERMO2 Run Time: 12:30 Method: 6010B
 File ID: T2.082211.123017 Analyst: KHR QC Key: WATERLOO
 Workgroup (AAB#): WG373583 Cal ID: ICP-TH - 22-AUG-11
 Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.403	mg/L	101	90 - 110	
Cadmium	0.0500	0.0503	mg/L	101	90 - 110	

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11080332 Run Date: 08/22/2011 Sample ID: WG373833-18
Instrument ID: ICP-THERMO2 Run Time: 13:10 Method: 6010B
File ID: T2.082211.131011 Analyst: KHR QC Key: WATERLOO
Workgroup (AAB#): WG373583 Cal ID: ICP-TH - 22-AUG-11
Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.403	mg/L	101	90 - 110	
Cadmium	0.0500	0.0500	mg/L	100	90 - 110	

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
PDF File ID: 2113472
Report generated 08/23/2011 13:10



Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11080332 Run Date: 08/22/2011 Sample ID: WG373833-26
 Instrument ID: ICP-THERMO2 Run Time: 15:46 Method: 6010B
 File ID: T2.082211.154651 Analyst: KHR QC Key: WATERLOO
 Workgroup (AAB#): WG373583 Cal ID: ICP-TH - 22-AUG-11
 Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.395	mg/L	98.8	90 - 110	
Cadmium	0.0500	0.0496	mg/L	99.3	90 - 110	

* Exceeds LIMITS Criteria

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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11080332 Run Date: 08/22/2011 Sample ID: WG373833-30
 Instrument ID: ICP-THERMO2 Run Time: 16:27 Method: 6010B
 File ID: T2.082211.162752 Analyst: KHR QC Key: WATERLOO
 Workgroup (AAB#): WG373583 Cal ID: ICP-TH - 22-AUG-11
 Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.399	mg/L	99.7	90 - 110	
Cadmium	0.0500	0.0499	mg/L	99.7	90 - 110	

* Exceeds LIMITS Criteria

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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11080332 Run Date: 08/22/2011 Sample ID: WG373833-34
 Instrument ID: ICP-THERMO2 Run Time: 17:49 Method: 6010B
 File ID: T2.082211.174902 Analyst: KHR QC Key: WATERLOO
 Workgroup (AAB#): WG373583 Cal ID: ICP-TH - 22-AUG-11
 Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.400	mg/L	100	90 - 110	
Cadmium	0.0500	0.0502	mg/L	100	90 - 110	

* Exceeds LIMITS Criteria

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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11080332 Run Date: 08/22/2011 Sample ID: WG373833-38
 Instrument ID: ICP-THERMO2 Run Time: 18:26 Method: 6010B
 File ID: T2.082211.182611 Analyst: KHR QC Key: WATERLOO
 Workgroup (AAB#): WG373583 Cal ID: ICP-TH - 22-AUG-11
 Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.400	mg/L	99.9	90 - 110	
Cadmium	0.0500	0.0502	mg/L	100	90 - 110	

* Exceeds LIMITS Criteria

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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11080332 Run Date: 08/22/2011 Sample ID: WG373833-44
Instrument ID: ICP-THERMO2 Run Time: 20:16 Method: 6010B
File ID: T2.082211.201612 Analyst: KHR QC Key: WATERLOO
Workgroup (AAB#): WG373583 Cal ID: ICP-TH - 22-AUG-11
Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.398	mg/L	99.4	90 - 110	
Cadmium	0.0500	0.0501	mg/L	100	90 - 110	

* Exceeds LIMITS Criteria

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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11080332 Run Date: 08/22/2011 Sample ID: WG373833-48
Instrument ID: ICP-THERMO2 Run Time: 20:56 Method: 6010B
File ID: T2.082211.205632 Analyst: KHR QC Key: WATERLOO
Workgroup (AAB#): WG373583 Cal ID: ICP-TH - 22-AUG-11
Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.398	mg/L	99.5	90 - 110	
Cadmium	0.0500	0.0501	mg/L	100	90 - 110	

* Exceeds LIMITS Criteria

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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11080332 Run Date: 08/22/2011 Sample ID: WG373833-10
 Instrument ID: ICP-THERMO2 Run Time: 10:32 Method: 6010B
 File ID: T2.082211.103254 Analyst: KHR QC Key: WATERLOO
 Workgroup (AAB#): WG373847 Cal ID: ICP-TH - 22-AUG-11
 Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.400	mg/L	100	90 - 110	
Cadmium	0.0500	0.0501	mg/L	100	90 - 110	

* Exceeds LIMITS Criteria

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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11080332 Run Date: 08/22/2011 Sample ID: WG373833-26
 Instrument ID: ICP-THERMO2 Run Time: 15:46 Method: 6010B
 File ID: T2.082211.154651 Analyst: KHR QC Key: WATERLOO
 Workgroup (AAB#): WG373847 Cal ID: ICP-TH - 22-AUG-11
 Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.395	mg/L	98.8	90 - 110	
Cadmium	0.0500	0.0496	mg/L	99.3	90 - 110	

* Exceeds LIMITS Criteria

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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11080332 Run Date: 08/22/2011 Sample ID: WG373833-30
 Instrument ID: ICP-THERMO2 Run Time: 16:27 Method: 6010B
 File ID: T2.082211.162752 Analyst: KHR QC Key: WATERLOO
 Workgroup (AAB#): WG373847 Cal ID: ICP-TH - 22-AUG-11
 Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.399	mg/L	99.7	90 - 110	
Cadmium	0.0500	0.0499	mg/L	99.7	90 - 110	

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11080332 Run Date: 08/22/2011 Sample ID: WG373833-34
 Instrument ID: ICP-THERMO2 Run Time: 17:49 Method: 6010B
 File ID: T2.082211.174902 Analyst: KHR QC Key: WATERLOO
 Workgroup (AAB#): WG373847 Cal ID: ICP-TH - 22-AUG-11
 Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.400	mg/L	100	90 - 110	
Cadmium	0.0500	0.0502	mg/L	100	90 - 110	

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11080332 Run Date: 08/22/2011 Sample ID: WG373833-38
Instrument ID: ICP-THERMO2 Run Time: 18:26 Method: 6010B
File ID: T2.082211.182611 Analyst: KHR QC Key: WATERLOO
Workgroup (AAB#): WG373847 Cal ID: ICP-TH - 22-AUG-11
Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.400	mg/L	99.9	90 - 110	
Cadmium	0.0500	0.0502	mg/L	100	90 - 110	

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11080332 Run Date: 08/22/2011 Sample ID: WG373833-40
 Instrument ID: ICP-THERMO2 Run Time: 19:06 Method: 6010B
 File ID: T2.082211.190610 Analyst: KHR QC Key: WATERLOO
 Workgroup (AAB#): WG373847 Cal ID: ICP-TH - 22-AUG-11
 Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.401	mg/L	100	90 - 110	
Cadmium	0.0500	0.0500	mg/L	99.9	90 - 110	

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
 PDF File ID: 2113472
 Report generated 08/23/2011 13:10



Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11080332 Run Date: 08/22/2011 Sample ID: WG373833-42
 Instrument ID: ICP-THERMO2 Run Time: 19:46 Method: 6010B
 File ID: T2.082211.194602 Analyst: KHR QC Key: WATERLOO
 Workgroup (AAB#): WG373847 Cal ID: ICP-TH - 22-AUG-11
 Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.397	mg/L	99.3	90 - 110	
Cadmium	0.0500	0.0499	mg/L	99.9	90 - 110	

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
 PDF File ID: 2113472
 Report generated 08/23/2011 13:10



Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11080332 Run Date: 08/22/2011 Sample ID: WG373833-44
 Instrument ID: ICP-THERMO2 Run Time: 20:16 Method: 6010B
 File ID: T2.082211.201612 Analyst: KHR QC Key: WATERLOO
 Workgroup (AAB#): WG373847 Cal ID: ICP-TH - 22-AUG-11
 Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.398	mg/L	99.4	90 - 110	
Cadmium	0.0500	0.0501	mg/L	100	90 - 110	

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
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 Report generated 08/23/2011 13:10



Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11080332 Run Date: 08/22/2011 Sample ID: WG373833-48
 Instrument ID: ICP-THERMO2 Run Time: 20:56 Method: 6010B
 File ID: T2.082211.205632 Analyst: KHR QC Key: WATERLOO
 Workgroup (AAB#): WG373847 Cal ID: ICP-TH - 22-AUG-11
 Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.398	mg/L	99.5	90 - 110	
Cadmium	0.0500	0.0501	mg/L	100	90 - 110	

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11080332 Run Date: 08/22/2011 Sample ID: WG373833-10
 Instrument ID: ICP-THERMO2 Run Time: 10:32 Method: 6010B
 File ID: T2.082211.103254 Analyst: KHR QC Key: WATERLOO
 Workgroup (AAB#): WG373849 Cal ID: ICP-TH - 22-AUG-11
 Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.400	mg/L	100	90 - 110	
Cadmium	0.0500	0.0501	mg/L	100	90 - 110	

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
 PDF File ID: 2113472
 Report generated 08/23/2011 13:10



Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11080332 Run Date: 08/22/2011 Sample ID: WG373833-26
 Instrument ID: ICP-THERMO2 Run Time: 15:46 Method: 6010B
 File ID: T2.082211.154651 Analyst: KHR QC Key: WATERLOO
 Workgroup (AAB#): WG373849 Cal ID: ICP-TH - 22-AUG-11
 Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.395	mg/L	98.8	90 - 110	
Cadmium	0.0500	0.0496	mg/L	99.3	90 - 110	

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
 PDF File ID: 2113472
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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11080332 Run Date: 08/22/2011 Sample ID: WG373833-30
 Instrument ID: ICP-THERMO2 Run Time: 16:27 Method: 6010B
 File ID: T2.082211.162752 Analyst: KHR QC Key: WATERLOO
 Workgroup (AAB#): WG373849 Cal ID: ICP-TH - 22-AUG-11
 Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.399	mg/L	99.7	90 - 110	
Cadmium	0.0500	0.0499	mg/L	99.7	90 - 110	

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
 PDF File ID: 2113472
 Report generated 08/23/2011 13:10



Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11080332 Run Date: 08/22/2011 Sample ID: WG373833-32
 Instrument ID: ICP-THERMO2 Run Time: 17:08 Method: 6010B
 File ID: T2.082211.170815 Analyst: KHR QC Key: WATERLOO
 Workgroup (AAB#): WG373849 Cal ID: ICP-TH - 22-AUG-11
 Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.403	mg/L	101	90 - 110	
Cadmium	0.0500	0.0505	mg/L	101	90 - 110	

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
 PDF File ID: 2113472
 Report generated 08/23/2011 13:10



Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11080332 Run Date: 08/22/2011 Sample ID: WG373833-34
Instrument ID: ICP-THERMO2 Run Time: 17:49 Method: 6010B
File ID: T2.082211.174902 Analyst: KHR QC Key: WATERLOO
Workgroup (AAB#): WG373849 Cal ID: ICP-TH - 22-AUG-11
Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.400	mg/L	100	90 - 110	
Cadmium	0.0500	0.0502	mg/L	100	90 - 110	

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11080332 Run Date: 08/22/2011 Sample ID: WG373833-38
Instrument ID: ICP-THERMO2 Run Time: 18:26 Method: 6010B
File ID: T2.082211.182611 Analyst: KHR QC Key: WATERLOO
Workgroup (AAB#): WG373849 Cal ID: ICP-TH - 22-AUG-11
Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.400	mg/L	99.9	90 - 110	
Cadmium	0.0500	0.0502	mg/L	100	90 - 110	

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11080332 Run Date: 08/22/2011 Sample ID: WG373833-44
 Instrument ID: ICP-THERMO2 Run Time: 20:16 Method: 6010B
 File ID: T2.082211.201612 Analyst: KHR QC Key: WATERLOO
 Workgroup (AAB#): WG373849 Cal ID: ICP-TH - 22-AUG-11
 Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.398	mg/L	99.4	90 - 110	
Cadmium	0.0500	0.0501	mg/L	100	90 - 110	

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11080332 Run Date: 08/22/2011 Sample ID: WG373833-48
 Instrument ID: ICP-THERMO2 Run Time: 20:56 Method: 6010B
 File ID: T2.082211.205632 Analyst: KHR QC Key: WATERLOO
 Workgroup (AAB#): WG373849 Cal ID: ICP-TH - 22-AUG-11
 Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.398	mg/L	99.5	90 - 110	
Cadmium	0.0500	0.0501	mg/L	100	90 - 110	

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
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Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG372983-08
Sol. AB: WG372983-09

File ID: T2.081111.124045
File ID: T2.081111.124359

Workgroup (AAB#): WG372936
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.000970	NS	0.250	0.244	97.6	
Cadmium	NS	0.000520	NS	0.500	0.477	95.4	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG372983-16
Sol. AB: WG372983-17

File ID: T2.081111.140830
File ID: T2.081111.141142

Workgroup (AAB#): WG372936
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.00135	NS	0.250	0.244	97.6	
Cadmium	NS	0.000520	NS	0.500	0.477	95.4	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373289-08
Sol. AB: WG373289-09

File ID: T2.081511.163241
File ID: T2.081511.163559

Workgroup (AAB#): WG372936
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.00328	NS	0.250	0.239	95.6	
Cadmium	NS	0.000780	NS	0.500	0.464	92.8	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373289-34
Sol. AB: WG373289-35

File ID: T2.081511.235153
File ID: T2.081511.235509

Workgroup (AAB#): WG372936
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.00236	NS	0.250	0.251	100	
Cadmium	NS	0.000800	NS	0.500	0.483	96.6	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373676-08
Sol. AB: WG373676-09

File ID: T2.081811.110153
File ID: T2.081811.110510

Workgroup (AAB#): WG372936
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	0.000480	NS	0.250	0.237	94.8	
Cadmium	NS	0.000610	NS	0.500	0.454	90.8	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373676-28
Sol. AB: WG373676-29

File ID: T2.081811.163507
File ID: T2.081811.163824

Workgroup (AAB#): WG372936
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.00134	NS	0.250	0.234	93.6	
Cadmium	NS	0.000730	NS	0.500	0.456	91.2	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
 Instrument ID: ICP-THERMO2
 Sol. A : WG373833-08
 Sol. AB : WG373833-09

File ID: T2.082211.102613
 File ID: T2.082211.102933

Workgroup (AAB#): WG372936
 Method: 6010B
 Units: mg/L
 Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.000160	NS	0.250	0.242	96.8	
Cadmium	NS	0.000750	NS	0.500	0.464	92.8	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373833-08
Sol. AB: WG373833-09

File ID: T2.082211.102613
File ID: T2.082211.102933

Workgroup (AAB#): WG372936
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.000160	NS	0.250	0.242	96.8	
Cadmium	NS	0.000750	NS	0.500	0.464	92.8	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

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Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373833-08
Sol. AB: WG373833-09

File ID: T2.082211.102613
File ID: T2.082211.102933

Workgroup (AAB#): WG372936
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.000160	NS	0.250	0.242	96.8	
Cadmium	NS	0.000750	NS	0.500	0.464	92.8	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373833-08
Sol. AB: WG373833-09

File ID: T2.082211.102613
File ID: T2.082211.102933

Workgroup (AAB#): WG372936
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.000160	NS	0.250	0.242	96.8	
Cadmium	NS	0.000750	NS	0.500	0.464	92.8	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373833-28
Sol. AB: WG373833-29

File ID: T2.082211.162113
File ID: T2.082211.162433

Workgroup (AAB#): WG372936
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.0000600	NS	0.250	0.243	97.2	
Cadmium	NS	0.000750	NS	0.500	0.463	92.6	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373833-28
Sol. AB: WG373833-29

File ID: T2.082211.162113
File ID: T2.082211.162433

Workgroup (AAB#): WG372936
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.0000600	NS	0.250	0.243	97.2	
Cadmium	NS	0.000750	NS	0.500	0.463	92.6	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373833-28
Sol. AB: WG373833-29

File ID: T2.082211.162113
File ID: T2.082211.162433

Workgroup (AAB#): WG372936
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.0000600	NS	0.250	0.243	97.2	
Cadmium	NS	0.000750	NS	0.500	0.463	92.6	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

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Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A : WG373833-28
Sol. AB : WG373833-29

File ID: T2.082211.162113
File ID: T2.082211.162433

Workgroup (AAB#): WG372936
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.0000600	NS	0.250	0.243	97.2	
Cadmium	NS	0.000750	NS	0.500	0.463	92.6	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

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Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373833-36
Sol. AB: WG373833-37

File ID: T2.082211.181930
File ID: T2.082211.182247

Workgroup (AAB#): WG372936
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.000230	NS	0.250	0.244	97.6	
Cadmium	NS	0.000830	NS	0.500	0.465	93.0	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

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Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373833-36
Sol. AB: WG373833-37

File ID: T2.082211.181930
File ID: T2.082211.182247

Workgroup (AAB#): WG372936
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.000230	NS	0.250	0.244	97.6	
Cadmium	NS	0.000830	NS	0.500	0.465	93.0	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

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Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373833-36
Sol. AB: WG373833-37

File ID: T2.082211.181930
File ID: T2.082211.182247

Workgroup (AAB#): WG372936
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.000230	NS	0.250	0.244	97.6	
Cadmium	NS	0.000830	NS	0.500	0.465	93.0	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

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Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373833-36
Sol. AB: WG373833-37

File ID: T2.082211.181930
File ID: T2.082211.182247

Workgroup (AAB#): WG372936
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.000230	NS	0.250	0.244	97.6	
Cadmium	NS	0.000830	NS	0.500	0.465	93.0	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

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Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373833-46
Sol. AB: WG373833-47

File ID: T2.082211.202256
File ID: T2.082211.202615

Workgroup (AAB#): WG372936
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.000980	NS	0.250	0.238	95.2	
Cadmium	NS	0.000660	NS	0.500	0.464	92.8	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373833-46
Sol. AB: WG373833-47

File ID: T2.082211.202256
File ID: T2.082211.202615

Workgroup (AAB#): WG372936
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.000980	NS	0.250	0.238	95.2	
Cadmium	NS	0.000660	NS	0.500	0.464	92.8	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373833-46
Sol. AB: WG373833-47

File ID: T2.082211.202256
File ID: T2.082211.202615

Workgroup (AAB#): WG372936
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.000980	NS	0.250	0.238	95.2	
Cadmium	NS	0.000660	NS	0.500	0.464	92.8	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A : WG373833-46
Sol. AB : WG373833-47

File ID: T2.082211.202256
File ID: T2.082211.202615

Workgroup (AAB#): WG372936
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.000980	NS	0.250	0.238	95.2	
Cadmium	NS	0.000660	NS	0.500	0.464	92.8	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A : WG373942-08
Sol. AB : WG373942-09

File ID: T2.082311.090223
File ID: T2.082311.090541

Workgroup (AAB#): WG372936
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.00233	NS	0.250	0.241	96.4	
Cadmium	NS	0.000750	NS	0.500	0.466	93.2	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373942-20
Sol. AB: WG373942-21

File ID: T2.082311.114317
File ID: T2.082311.114637

Workgroup (AAB#): WG372936
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.00127	NS	0.250	0.242	96.8	
Cadmium	NS	0.000690	NS	0.500	0.466	93.2	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG372983-08
Sol. AB: WG372983-09

File ID: T2.081111.124045
File ID: T2.081111.124359

Workgroup (AAB#): WG373116
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.000970	NS	0.250	0.244	97.6	
Cadmium	NS	0.000520	NS	0.500	0.477	95.4	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG372983-16
Sol. AB: WG372983-17

File ID: T2.081111.140830
File ID: T2.081111.141142

Workgroup (AAB#): WG373116
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.00135	NS	0.250	0.244	97.6	
Cadmium	NS	0.000520	NS	0.500	0.477	95.4	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373289-08
Sol. AB: WG373289-09

File ID: T2.081511.163241
File ID: T2.081511.163559

Workgroup (AAB#): WG373116
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.00328	NS	0.250	0.239	95.6	
Cadmium	NS	0.000780	NS	0.500	0.464	92.8	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373289-34
Sol. AB: WG373289-35

File ID: T2.081511.235153
File ID: T2.081511.235509

Workgroup (AAB#): WG373116
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.00236	NS	0.250	0.251	100	
Cadmium	NS	0.000800	NS	0.500	0.483	96.6	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373676-08
Sol. AB: WG373676-09

File ID: T2.081811.110153
File ID: T2.081811.110510

Workgroup (AAB#): WG373116
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	0.000480	NS	0.250	0.237	94.8	
Cadmium	NS	0.000610	NS	0.500	0.454	90.8	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373676-28
Sol. AB: WG373676-29

File ID: T2.081811.163507
File ID: T2.081811.163824

Workgroup (AAB#): WG373116
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.00134	NS	0.250	0.234	93.6	
Cadmium	NS	0.000730	NS	0.500	0.456	91.2	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373833-08
Sol. AB: WG373833-09

File ID: T2.082211.102613
File ID: T2.082211.102933

Workgroup (AAB#): WG373116
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.000160	NS	0.250	0.242	96.8	
Cadmium	NS	0.000750	NS	0.500	0.464	92.8	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373833-08
Sol. AB: WG373833-09

File ID: T2.082211.102613
File ID: T2.082211.102933

Workgroup (AAB#): WG373116
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.000160	NS	0.250	0.242	96.8	
Cadmium	NS	0.000750	NS	0.500	0.464	92.8	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

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Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373833-08
Sol. AB: WG373833-09

File ID: T2.082211.102613
File ID: T2.082211.102933

Workgroup (AAB#): WG373116
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.000160	NS	0.250	0.242	96.8	
Cadmium	NS	0.000750	NS	0.500	0.464	92.8	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373833-08
Sol. AB: WG373833-09

File ID: T2.082211.102613
File ID: T2.082211.102933

Workgroup (AAB#): WG373116
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.000160	NS	0.250	0.242	96.8	
Cadmium	NS	0.000750	NS	0.500	0.464	92.8	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373833-28
Sol. AB: WG373833-29

File ID: T2.082211.162113
File ID: T2.082211.162433

Workgroup (AAB#): WG373116
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.0000600	NS	0.250	0.243	97.2	
Cadmium	NS	0.000750	NS	0.500	0.463	92.6	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A : WG373833-28
Sol. AB : WG373833-29

File ID: T2.082211.162113
File ID: T2.082211.162433

Workgroup (AAB#): WG373116
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.0000600	NS	0.250	0.243	97.2	
Cadmium	NS	0.000750	NS	0.500	0.463	92.6	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373833-28
Sol. AB: WG373833-29

File ID: T2.082211.162113
File ID: T2.082211.162433

Workgroup (AAB#): WG373116
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.0000600	NS	0.250	0.243	97.2	
Cadmium	NS	0.000750	NS	0.500	0.463	92.6	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

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Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A : WG373833-28
Sol. AB : WG373833-29

File ID: T2.082211.162113
File ID: T2.082211.162433

Workgroup (AAB#): WG373116
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.0000600	NS	0.250	0.243	97.2	
Cadmium	NS	0.000750	NS	0.500	0.463	92.6	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

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Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373833-36
Sol. AB: WG373833-37

File ID: T2.082211.181930
File ID: T2.082211.182247

Workgroup (AAB#): WG373116
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.000230	NS	0.250	0.244	97.6	
Cadmium	NS	0.000830	NS	0.500	0.465	93.0	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

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Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373833-36
Sol. AB: WG373833-37

File ID: T2.082211.181930
File ID: T2.082211.182247

Workgroup (AAB#): WG373116
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.000230	NS	0.250	0.244	97.6	
Cadmium	NS	0.000830	NS	0.500	0.465	93.0	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

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Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373833-36
Sol. AB: WG373833-37

File ID: T2.082211.181930
File ID: T2.082211.182247

Workgroup (AAB#): WG373116
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.000230	NS	0.250	0.244	97.6	
Cadmium	NS	0.000830	NS	0.500	0.465	93.0	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

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Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373833-36
Sol. AB: WG373833-37

File ID: T2.082211.181930
File ID: T2.082211.182247

Workgroup (AAB#): WG373116
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.000230	NS	0.250	0.244	97.6	
Cadmium	NS	0.000830	NS	0.500	0.465	93.0	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

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Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373833-46
Sol. AB: WG373833-47

File ID: T2.082211.202256
File ID: T2.082211.202615

Workgroup (AAB#): WG373116
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.000980	NS	0.250	0.238	95.2	
Cadmium	NS	0.000660	NS	0.500	0.464	92.8	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373833-46
Sol. AB: WG373833-47

File ID: T2.082211.202256
File ID: T2.082211.202615

Workgroup (AAB#): WG373116
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.000980	NS	0.250	0.238	95.2	
Cadmium	NS	0.000660	NS	0.500	0.464	92.8	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373833-46
Sol. AB: WG373833-47

File ID: T2.082211.202256
File ID: T2.082211.202615

Workgroup (AAB#): WG373116
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.000980	NS	0.250	0.238	95.2	
Cadmium	NS	0.000660	NS	0.500	0.464	92.8	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A : WG373833-46
Sol. AB : WG373833-47

File ID: T2.082211.202256
File ID: T2.082211.202615

Workgroup (AAB#): WG373116
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.000980	NS	0.250	0.238	95.2	
Cadmium	NS	0.000660	NS	0.500	0.464	92.8	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373942-08
Sol. AB: WG373942-09

File ID: T2.082311.090223
File ID: T2.082311.090541

Workgroup (AAB#): WG373116
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.00233	NS	0.250	0.241	96.4	
Cadmium	NS	0.000750	NS	0.500	0.466	93.2	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A : WG373942-20
Sol. AB : WG373942-21

File ID: T2.082311.114317
File ID: T2.082311.114637

Workgroup (AAB#): WG373116
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.00127	NS	0.250	0.242	96.8	
Cadmium	NS	0.000690	NS	0.500	0.466	93.2	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG372983-08
Sol. AB: WG372983-09

File ID: T2.081111.124045
File ID: T2.081111.124359

Workgroup (AAB#): WG373241
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.000970	NS	0.250	0.244	97.6	
Cadmium	NS	0.000520	NS	0.500	0.477	95.4	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG372983-16
Sol. AB: WG372983-17

File ID: T2.081111.140830
File ID: T2.081111.141142

Workgroup (AAB#): WG373241
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.00135	NS	0.250	0.244	97.6	
Cadmium	NS	0.000520	NS	0.500	0.477	95.4	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373289-08
Sol. AB: WG373289-09

File ID: T2.081511.163241
File ID: T2.081511.163559

Workgroup (AAB#): WG373241
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.00328	NS	0.250	0.239	95.6	
Cadmium	NS	0.000780	NS	0.500	0.464	92.8	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373289-34
Sol. AB: WG373289-35

File ID: T2.081511.235153
File ID: T2.081511.235509

Workgroup (AAB#): WG373241
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.00236	NS	0.250	0.251	100	
Cadmium	NS	0.000800	NS	0.500	0.483	96.6	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373676-08
Sol. AB: WG373676-09

File ID: T2.081811.110153
File ID: T2.081811.110510

Workgroup (AAB#): WG373241
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	0.000480	NS	0.250	0.237	94.8	
Cadmium	NS	0.000610	NS	0.500	0.454	90.8	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373676-28
Sol. AB: WG373676-29

File ID: T2.081811.163507
File ID: T2.081811.163824

Workgroup (AAB#): WG373241
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.00134	NS	0.250	0.234	93.6	
Cadmium	NS	0.000730	NS	0.500	0.456	91.2	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373833-08
Sol. AB: WG373833-09

File ID: T2.082211.102613
File ID: T2.082211.102933

Workgroup (AAB#): WG373241
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.000160	NS	0.250	0.242	96.8	
Cadmium	NS	0.000750	NS	0.500	0.464	92.8	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

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Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373833-08
Sol. AB: WG373833-09

File ID: T2.082211.102613
File ID: T2.082211.102933

Workgroup (AAB#): WG373241
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.000160	NS	0.250	0.242	96.8	
Cadmium	NS	0.000750	NS	0.500	0.464	92.8	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

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Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A : WG373833-08
Sol. AB : WG373833-09

File ID: T2.082211.102613
File ID: T2.082211.102933

Workgroup (AAB#): WG373241
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.000160	NS	0.250	0.242	96.8	
Cadmium	NS	0.000750	NS	0.500	0.464	92.8	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

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Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373833-08
Sol. AB: WG373833-09

File ID: T2.082211.102613
File ID: T2.082211.102933

Workgroup (AAB#): WG373241
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.000160	NS	0.250	0.242	96.8	
Cadmium	NS	0.000750	NS	0.500	0.464	92.8	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

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Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373833-28
Sol. AB: WG373833-29

File ID: T2.082211.162113
File ID: T2.082211.162433

Workgroup (AAB#): WG373241
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.0000600	NS	0.250	0.243	97.2	
Cadmium	NS	0.000750	NS	0.500	0.463	92.6	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373833-28
Sol. AB: WG373833-29

File ID: T2.082211.162113
File ID: T2.082211.162433

Workgroup (AAB#): WG373241
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.0000600	NS	0.250	0.243	97.2	
Cadmium	NS	0.000750	NS	0.500	0.463	92.6	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373833-28
Sol. AB: WG373833-29

File ID: T2.082211.162113
File ID: T2.082211.162433

Workgroup (AAB#): WG373241
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.0000600	NS	0.250	0.243	97.2	
Cadmium	NS	0.000750	NS	0.500	0.463	92.6	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

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Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373833-28
Sol. AB: WG373833-29

File ID: T2.082211.162113
File ID: T2.082211.162433

Workgroup (AAB#): WG373241
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.0000600	NS	0.250	0.243	97.2	
Cadmium	NS	0.000750	NS	0.500	0.463	92.6	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

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Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373833-36
Sol. AB: WG373833-37

File ID: T2.082211.181930
File ID: T2.082211.182247

Workgroup (AAB#): WG373241
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.000230	NS	0.250	0.244	97.6	
Cadmium	NS	0.000830	NS	0.500	0.465	93.0	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

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Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373833-36
Sol. AB: WG373833-37

File ID: T2.082211.181930
File ID: T2.082211.182247

Workgroup (AAB#): WG373241
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.000230	NS	0.250	0.244	97.6	
Cadmium	NS	0.000830	NS	0.500	0.465	93.0	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

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Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373833-36
Sol. AB: WG373833-37

File ID: T2.082211.181930
File ID: T2.082211.182247

Workgroup (AAB#): WG373241
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.000230	NS	0.250	0.244	97.6	
Cadmium	NS	0.000830	NS	0.500	0.465	93.0	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

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Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373833-36
Sol. AB: WG373833-37

File ID: T2.082211.181930
File ID: T2.082211.182247

Workgroup (AAB#): WG373241
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.000230	NS	0.250	0.244	97.6	
Cadmium	NS	0.000830	NS	0.500	0.465	93.0	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

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Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A : WG373833-46
Sol. AB : WG373833-47

File ID: T2.082211.202256
File ID: T2.082211.202615

Workgroup (AAB#): WG373241
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.000980	NS	0.250	0.238	95.2	
Cadmium	NS	0.000660	NS	0.500	0.464	92.8	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

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Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373833-46
Sol. AB: WG373833-47

File ID: T2.082211.202256
File ID: T2.082211.202615

Workgroup (AAB#): WG373241
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.000980	NS	0.250	0.238	95.2	
Cadmium	NS	0.000660	NS	0.500	0.464	92.8	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

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Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373833-46
Sol. AB: WG373833-47

File ID: T2.082211.202256
File ID: T2.082211.202615

Workgroup (AAB#): WG373241
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.000980	NS	0.250	0.238	95.2	
Cadmium	NS	0.000660	NS	0.500	0.464	92.8	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

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Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373833-46
Sol. AB: WG373833-47

File ID: T2.082211.202256
File ID: T2.082211.202615

Workgroup (AAB#): WG373241
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.000980	NS	0.250	0.238	95.2	
Cadmium	NS	0.000660	NS	0.500	0.464	92.8	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

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Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373942-08
Sol. AB: WG373942-09

File ID: T2.082311.090223
File ID: T2.082311.090541

Workgroup (AAB#): WG373241
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.00233	NS	0.250	0.241	96.4	
Cadmium	NS	0.000750	NS	0.500	0.466	93.2	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

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Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373942-20
Sol. AB: WG373942-21

File ID: T2.082311.114317
File ID: T2.082311.114637

Workgroup (AAB#): WG373241
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.00127	NS	0.250	0.242	96.8	
Cadmium	NS	0.000690	NS	0.500	0.466	93.2	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG372983-08
Sol. AB: WG372983-09

File ID: T2.081111.124045
File ID: T2.081111.124359

Workgroup (AAB#): WG373847
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.000970	NS	0.250	0.244	97.6	
Cadmium	NS	0.000520	NS	0.500	0.477	95.4	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG372983-16
Sol. AB: WG372983-17

File ID: T2.081111.140830
File ID: T2.081111.141142

Workgroup (AAB#): WG373847
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.00135	NS	0.250	0.244	97.6	
Cadmium	NS	0.000520	NS	0.500	0.477	95.4	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373289-08
Sol. AB: WG373289-09

File ID: T2.081511.163241
File ID: T2.081511.163559

Workgroup (AAB#): WG373847
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.00328	NS	0.250	0.239	95.6	
Cadmium	NS	0.000780	NS	0.500	0.464	92.8	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373289-34
Sol. AB: WG373289-35

File ID: T2.081511.235153
File ID: T2.081511.235509

Workgroup (AAB#): WG373847
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.00236	NS	0.250	0.251	100	
Cadmium	NS	0.000800	NS	0.500	0.483	96.6	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373676-08
Sol. AB: WG373676-09

File ID: T2.081811.110153
File ID: T2.081811.110510

Workgroup (AAB#): WG373847
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	0.000480	NS	0.250	0.237	94.8	
Cadmium	NS	0.000610	NS	0.500	0.454	90.8	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373676-28
Sol. AB: WG373676-29

File ID: T2.081811.163507
File ID: T2.081811.163824

Workgroup (AAB#): WG373847
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.00134	NS	0.250	0.234	93.6	
Cadmium	NS	0.000730	NS	0.500	0.456	91.2	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

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Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373833-08
Sol. AB: WG373833-09

File ID: T2.082211.102613
File ID: T2.082211.102933

Workgroup (AAB#): WG373847
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.000160	NS	0.250	0.242	96.8	
Cadmium	NS	0.000750	NS	0.500	0.464	92.8	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

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Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A : WG373833-08
Sol. AB : WG373833-09

File ID: T2.082211.102613
File ID: T2.082211.102933

Workgroup (AAB#): WG373847
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.000160	NS	0.250	0.242	96.8	
Cadmium	NS	0.000750	NS	0.500	0.464	92.8	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373833-08
Sol. AB: WG373833-09

File ID: T2.082211.102613
File ID: T2.082211.102933

Workgroup (AAB#): WG373847
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.000160	NS	0.250	0.242	96.8	
Cadmium	NS	0.000750	NS	0.500	0.464	92.8	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

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+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373833-08
Sol. AB: WG373833-09

File ID: T2.082211.102613
File ID: T2.082211.102933

Workgroup (AAB#): WG373847
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.000160	NS	0.250	0.242	96.8	
Cadmium	NS	0.000750	NS	0.500	0.464	92.8	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

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Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373833-28
Sol. AB: WG373833-29

File ID: T2.082211.162113
File ID: T2.082211.162433

Workgroup (AAB#): WG373847
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.0000600	NS	0.250	0.243	97.2	
Cadmium	NS	0.000750	NS	0.500	0.463	92.6	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
 Instrument ID: ICP-THERMO2
 Sol. A : WG373833-28
 Sol. AB : WG373833-29

File ID: T2.082211.162113
 File ID: T2.082211.162433

Workgroup (AAB#): WG373847
 Method: 6010B
 Units: mg/L
 Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.0000600	NS	0.250	0.243	97.2	
Cadmium	NS	0.000750	NS	0.500	0.463	92.6	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

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Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373833-28
Sol. AB: WG373833-29

File ID: T2.082211.162113
File ID: T2.082211.162433

Workgroup (AAB#): WG373847
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.0000600	NS	0.250	0.243	97.2	
Cadmium	NS	0.000750	NS	0.500	0.463	92.6	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

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Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373833-28
Sol. AB: WG373833-29

File ID: T2.082211.162113
File ID: T2.082211.162433

Workgroup (AAB#): WG373847
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.0000600	NS	0.250	0.243	97.2	
Cadmium	NS	0.000750	NS	0.500	0.463	92.6	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

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Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373833-36
Sol. AB: WG373833-37

File ID: T2.082211.181930
File ID: T2.082211.182247

Workgroup (AAB#): WG373847
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.000230	NS	0.250	0.244	97.6	
Cadmium	NS	0.000830	NS	0.500	0.465	93.0	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A : WG373833-36
Sol. AB : WG373833-37

File ID: T2.082211.181930
File ID: T2.082211.182247

Workgroup (AAB#): WG373847
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.000230	NS	0.250	0.244	97.6	
Cadmium	NS	0.000830	NS	0.500	0.465	93.0	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373833-36
Sol. AB: WG373833-37

File ID: T2.082211.181930
File ID: T2.082211.182247

Workgroup (AAB#): WG373847
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.000230	NS	0.250	0.244	97.6	
Cadmium	NS	0.000830	NS	0.500	0.465	93.0	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

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Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373833-36
Sol. AB: WG373833-37

File ID: T2.082211.181930
File ID: T2.082211.182247

Workgroup (AAB#): WG373847
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.000230	NS	0.250	0.244	97.6	
Cadmium	NS	0.000830	NS	0.500	0.465	93.0	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

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Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373833-46
Sol. AB: WG373833-47

File ID: T2.082211.202256
File ID: T2.082211.202615

Workgroup (AAB#): WG373847
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.000980	NS	0.250	0.238	95.2	
Cadmium	NS	0.000660	NS	0.500	0.464	92.8	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

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Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373833-46
Sol. AB: WG373833-47

File ID: T2.082211.202256
File ID: T2.082211.202615

Workgroup (AAB#): WG373847
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.000980	NS	0.250	0.238	95.2	
Cadmium	NS	0.000660	NS	0.500	0.464	92.8	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

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Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373833-46
Sol. AB: WG373833-47

File ID: T2.082211.202256
File ID: T2.082211.202615

Workgroup (AAB#): WG373847
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.000980	NS	0.250	0.238	95.2	
Cadmium	NS	0.000660	NS	0.500	0.464	92.8	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

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Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373833-46
Sol. AB: WG373833-47

File ID: T2.082211.202256
File ID: T2.082211.202615

Workgroup (AAB#): WG373847
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.000980	NS	0.250	0.238	95.2	
Cadmium	NS	0.000660	NS	0.500	0.464	92.8	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

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Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373942-08
Sol. AB: WG373942-09

File ID: T2.082311.090223
File ID: T2.082311.090541

Workgroup (AAB#): WG373847
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.00233	NS	0.250	0.241	96.4	
Cadmium	NS	0.000750	NS	0.500	0.466	93.2	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373942-20
Sol. AB: WG373942-21

File ID: T2.082311.114317
File ID: T2.082311.114637

Workgroup (AAB#): WG373847
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.00127	NS	0.250	0.242	96.8	
Cadmium	NS	0.000690	NS	0.500	0.466	93.2	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG372983-08
Sol. AB: WG372983-09

File ID: T2.081111.124045
File ID: T2.081111.124359

Workgroup (AAB#): WG373849
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.000970	NS	0.250	0.244	97.6	
Cadmium	NS	0.000520	NS	0.500	0.477	95.4	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG372983-16
Sol. AB: WG372983-17

File ID: T2.081111.140830
File ID: T2.081111.141142

Workgroup (AAB#): WG373849
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.00135	NS	0.250	0.244	97.6	
Cadmium	NS	0.000520	NS	0.500	0.477	95.4	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373289-08
Sol. AB: WG373289-09

File ID: T2.081511.163241
File ID: T2.081511.163559

Workgroup (AAB#): WG373849
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.00328	NS	0.250	0.239	95.6	
Cadmium	NS	0.000780	NS	0.500	0.464	92.8	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373289-34
Sol. AB: WG373289-35

File ID: T2.081511.235153
File ID: T2.081511.235509

Workgroup (AAB#): WG373849
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.00236	NS	0.250	0.251	100	
Cadmium	NS	0.000800	NS	0.500	0.483	96.6	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373676-08
Sol. AB: WG373676-09

File ID: T2.081811.110153
File ID: T2.081811.110510

Workgroup (AAB#): WG373849
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	0.000480	NS	0.250	0.237	94.8	
Cadmium	NS	0.000610	NS	0.500	0.454	90.8	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373676-28
Sol. AB: WG373676-29

File ID: T2.081811.163507
File ID: T2.081811.163824

Workgroup (AAB#): WG373849
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.00134	NS	0.250	0.234	93.6	
Cadmium	NS	0.000730	NS	0.500	0.456	91.2	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373833-08
Sol. AB: WG373833-09

File ID: T2.082211.102613
File ID: T2.082211.102933

Workgroup (AAB#): WG373849
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.000160	NS	0.250	0.242	96.8	
Cadmium	NS	0.000750	NS	0.500	0.464	92.8	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373833-08
Sol. AB: WG373833-09

File ID: T2.082211.102613
File ID: T2.082211.102933

Workgroup (AAB#): WG373849
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.000160	NS	0.250	0.242	96.8	
Cadmium	NS	0.000750	NS	0.500	0.464	92.8	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A : WG373833-08
Sol. AB : WG373833-09

File ID: T2.082211.102613
File ID: T2.082211.102933

Workgroup (AAB#): WG373849
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.000160	NS	0.250	0.242	96.8	
Cadmium	NS	0.000750	NS	0.500	0.464	92.8	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373833-08
Sol. AB: WG373833-09

File ID: T2.082211.102613
File ID: T2.082211.102933

Workgroup (AAB#): WG373849
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.000160	NS	0.250	0.242	96.8	
Cadmium	NS	0.000750	NS	0.500	0.464	92.8	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373833-28
Sol. AB: WG373833-29

File ID: T2.082211.162113
File ID: T2.082211.162433

Workgroup (AAB#): WG373849
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.0000600	NS	0.250	0.243	97.2	
Cadmium	NS	0.000750	NS	0.500	0.463	92.6	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373833-28
Sol. AB: WG373833-29

File ID: T2.082211.162113
File ID: T2.082211.162433

Workgroup (AAB#): WG373849
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.0000600	NS	0.250	0.243	97.2	
Cadmium	NS	0.000750	NS	0.500	0.463	92.6	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

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Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373833-28
Sol. AB: WG373833-29

File ID: T2.082211.162113
File ID: T2.082211.162433

Workgroup (AAB#): WG373849
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.0000600	NS	0.250	0.243	97.2	
Cadmium	NS	0.000750	NS	0.500	0.463	92.6	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

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Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
 Instrument ID: ICP-THERMO2
 Sol. A : WG373833-28
 Sol. AB : WG373833-29

File ID: T2.082211.162113
 File ID: T2.082211.162433

Workgroup (AAB#): WG373849
 Method: 6010B
 Units: mg/L
 Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.0000600	NS	0.250	0.243	97.2	
Cadmium	NS	0.000750	NS	0.500	0.463	92.6	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

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Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373833-36
Sol. AB: WG373833-37

File ID: T2.082211.181930
File ID: T2.082211.182247

Workgroup (AAB#): WG373849
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.000230	NS	0.250	0.244	97.6	
Cadmium	NS	0.000830	NS	0.500	0.465	93.0	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

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Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373833-36
Sol. AB: WG373833-37

File ID: T2.082211.181930
File ID: T2.082211.182247

Workgroup (AAB#): WG373849
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.000230	NS	0.250	0.244	97.6	
Cadmium	NS	0.000830	NS	0.500	0.465	93.0	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

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Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373833-36
Sol. AB: WG373833-37

File ID: T2.082211.181930
File ID: T2.082211.182247

Workgroup (AAB#): WG373849
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.000230	NS	0.250	0.244	97.6	
Cadmium	NS	0.000830	NS	0.500	0.465	93.0	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

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Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373833-36
Sol. AB: WG373833-37

File ID: T2.082211.181930
File ID: T2.082211.182247

Workgroup (AAB#): WG373849
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.000230	NS	0.250	0.244	97.6	
Cadmium	NS	0.000830	NS	0.500	0.465	93.0	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

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Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373833-46
Sol. AB: WG373833-47

File ID: T2.082211.202256
File ID: T2.082211.202615

Workgroup (AAB#): WG373849
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.000980	NS	0.250	0.238	95.2	
Cadmium	NS	0.000660	NS	0.500	0.464	92.8	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373833-46
Sol. AB: WG373833-47

File ID: T2.082211.202256
File ID: T2.082211.202615

Workgroup (AAB#): WG373849
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.000980	NS	0.250	0.238	95.2	
Cadmium	NS	0.000660	NS	0.500	0.464	92.8	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373833-46
Sol. AB: WG373833-47

File ID: T2.082211.202256
File ID: T2.082211.202615

Workgroup (AAB#): WG373849
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.000980	NS	0.250	0.238	95.2	
Cadmium	NS	0.000660	NS	0.500	0.464	92.8	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

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Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373833-46
Sol. AB: WG373833-47

File ID: T2.082211.202256
File ID: T2.082211.202615

Workgroup (AAB#): WG373849
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.000980	NS	0.250	0.238	95.2	
Cadmium	NS	0.000660	NS	0.500	0.464	92.8	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

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Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373942-08
Sol. AB: WG373942-09

File ID: T2.082311.090223
File ID: T2.082311.090541

Workgroup (AAB#): WG373849
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.00233	NS	0.250	0.241	96.4	
Cadmium	NS	0.000750	NS	0.500	0.466	93.2	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373942-20
Sol. AB: WG373942-21

File ID: T2.082311.114317
File ID: T2.082311.114637

Workgroup (AAB#): WG373849
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.00127	NS	0.250	0.242	96.8	
Cadmium	NS	0.000690	NS	0.500	0.466	93.2	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG372983-08
Sol. AB: WG372983-09

File ID: T2.081111.124045
File ID: T2.081111.124359

Workgroup (AAB#): WG373583
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.000970	NS	0.250	0.244	97.6	
Cadmium	NS	0.000520	NS	0.500	0.477	95.4	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG372983-16
Sol. AB: WG372983-17

File ID: T2.081111.140830
File ID: T2.081111.141142

Workgroup (AAB#): WG373583
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.00135	NS	0.250	0.244	97.6	
Cadmium	NS	0.000520	NS	0.500	0.477	95.4	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

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Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373289-08
Sol. AB: WG373289-09

File ID: T2.081511.163241
File ID: T2.081511.163559

Workgroup (AAB#): WG373583
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.00328	NS	0.250	0.239	95.6	
Cadmium	NS	0.000780	NS	0.500	0.464	92.8	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

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Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373289-34
Sol. AB: WG373289-35

File ID: T2.081511.235153
File ID: T2.081511.235509

Workgroup (AAB#): WG373583
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.00236	NS	0.250	0.251	100	
Cadmium	NS	0.000800	NS	0.500	0.483	96.6	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373676-08
Sol. AB: WG373676-09

File ID: T2.081811.110153
File ID: T2.081811.110510

Workgroup (AAB#): WG373583
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	0.000480	NS	0.250	0.237	94.8	
Cadmium	NS	0.000610	NS	0.500	0.454	90.8	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373676-28
Sol. AB: WG373676-29

File ID: T2.081811.163507
File ID: T2.081811.163824

Workgroup (AAB#): WG373583
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.00134	NS	0.250	0.234	93.6	
Cadmium	NS	0.000730	NS	0.500	0.456	91.2	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

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Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373833-08
Sol. AB: WG373833-09

File ID: T2.082211.102613
File ID: T2.082211.102933

Workgroup (AAB#): WG373583
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.000160	NS	0.250	0.242	96.8	
Cadmium	NS	0.000750	NS	0.500	0.464	92.8	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

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Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373833-08
Sol. AB: WG373833-09

File ID: T2.082211.102613
File ID: T2.082211.102933

Workgroup (AAB#): WG373583
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.000160	NS	0.250	0.242	96.8	
Cadmium	NS	0.000750	NS	0.500	0.464	92.8	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

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Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373833-08
Sol. AB: WG373833-09

File ID: T2.082211.102613
File ID: T2.082211.102933

Workgroup (AAB#): WG373583
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.000160	NS	0.250	0.242	96.8	
Cadmium	NS	0.000750	NS	0.500	0.464	92.8	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373833-08
Sol. AB: WG373833-09

File ID: T2.082211.102613
File ID: T2.082211.102933

Workgroup (AAB#): WG373583
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.000160	NS	0.250	0.242	96.8	
Cadmium	NS	0.000750	NS	0.500	0.464	92.8	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373833-28
Sol. AB: WG373833-29

File ID: T2.082211.162113
File ID: T2.082211.162433

Workgroup (AAB#): WG373583
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.0000600	NS	0.250	0.243	97.2	
Cadmium	NS	0.000750	NS	0.500	0.463	92.6	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

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Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373833-28
Sol. AB: WG373833-29

File ID: T2.082211.162113
File ID: T2.082211.162433

Workgroup (AAB#): WG373583
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.0000600	NS	0.250	0.243	97.2	
Cadmium	NS	0.000750	NS	0.500	0.463	92.6	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373833-28
Sol. AB: WG373833-29

File ID: T2.082211.162113
File ID: T2.082211.162433

Workgroup (AAB#): WG373583
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.0000600	NS	0.250	0.243	97.2	
Cadmium	NS	0.000750	NS	0.500	0.463	92.6	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373833-28
Sol. AB: WG373833-29

File ID: T2.082211.162113
File ID: T2.082211.162433

Workgroup (AAB#): WG373583
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.0000600	NS	0.250	0.243	97.2	
Cadmium	NS	0.000750	NS	0.500	0.463	92.6	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373833-36
Sol. AB: WG373833-37

File ID: T2.082211.181930
File ID: T2.082211.182247

Workgroup (AAB#): WG373583
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.000230	NS	0.250	0.244	97.6	
Cadmium	NS	0.000830	NS	0.500	0.465	93.0	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373833-36
Sol. AB: WG373833-37

File ID: T2.082211.181930
File ID: T2.082211.182247

Workgroup (AAB#): WG373583
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.000230	NS	0.250	0.244	97.6	
Cadmium	NS	0.000830	NS	0.500	0.465	93.0	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373833-36
Sol. AB: WG373833-37

File ID: T2.082211.181930
File ID: T2.082211.182247

Workgroup (AAB#): WG373583
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.000230	NS	0.250	0.244	97.6	
Cadmium	NS	0.000830	NS	0.500	0.465	93.0	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373833-36
Sol. AB: WG373833-37

File ID: T2.082211.181930
File ID: T2.082211.182247

Workgroup (AAB#): WG373583
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.000230	NS	0.250	0.244	97.6	
Cadmium	NS	0.000830	NS	0.500	0.465	93.0	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
 Instrument ID: ICP-THERMO2
 Sol. A : WG373833-46
 Sol. AB : WG373833-47

File ID: T2.082211.202256
 File ID: T2.082211.202615

Workgroup (AAB#): WG373583
 Method: 6010B
 Units: mg/L
 Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.000980	NS	0.250	0.238	95.2	
Cadmium	NS	0.000660	NS	0.500	0.464	92.8	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373833-46
Sol. AB: WG373833-47

File ID: T2.082211.202256
File ID: T2.082211.202615

Workgroup (AAB#): WG373583
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.000980	NS	0.250	0.238	95.2	
Cadmium	NS	0.000660	NS	0.500	0.464	92.8	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373833-46
Sol. AB: WG373833-47

File ID: T2.082211.202256
File ID: T2.082211.202615

Workgroup (AAB#): WG373583
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.000980	NS	0.250	0.238	95.2	
Cadmium	NS	0.000660	NS	0.500	0.464	92.8	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373833-46
Sol. AB: WG373833-47

File ID: T2.082211.202256
File ID: T2.082211.202615

Workgroup (AAB#): WG373583
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.000980	NS	0.250	0.238	95.2	
Cadmium	NS	0.000660	NS	0.500	0.464	92.8	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A: WG373942-08
Sol. AB: WG373942-09

File ID: T2.082311.090223
File ID: T2.082311.090541

Workgroup (AAB#): WG373583
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.00233	NS	0.250	0.241	96.4	
Cadmium	NS	0.000750	NS	0.500	0.466	93.2	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11080332
Instrument ID: ICP-THERMO2
Sol. A : WG373942-20
Sol. AB : WG373942-21

File ID: T2.082311.114317
File ID: T2.082311.114637

Workgroup (AAB#): WG373583
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.00127	NS	0.250	0.242	96.8	
Cadmium	NS	0.000690	NS	0.500	0.466	93.2	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
 INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Login Number: L11080332

Date: 01/25/2011

Instrument ID: ICP-THERMO2

Method: 6010B

Analyte	Wave Length	AL	AS	B	BA	BE
ALUMINUM	308.20	0	0	0	0	0
ANTIMONY	206.80	0.0000210	0	0	0	0
ARSENIC	189.00	0	0	0	0	0
BARIUM	455.40	0	0	0	0	0
BERYLLIUM	313.00	0	0	0	0	0
BORON	249.70	0	0	0	0	0
CADMIUM	228.80	0	0.00190	0	-0.000140	0
CALCIUM	422.70	0	0	0	0	0
CHROMIUM	267.70	0	0	0	0	0
COBALT	228.60	0	0	0	0	0
COPPER	224.70	0	0	0	0	0
IRON	261.20	0	0	0	0	0
LEAD	220.30	0.000335	0	0	0	0
LITHIUM	670.80	0	0	0	0	0
MAGNESIUM	279.10	0	0	0	0	0
MANGANESE	257.60	0	0	0	0	0
MOLYBDENUM	202.03	0	0	0	0	0
NICKEL	231.60	0	0	0	0	0
PHOSPHORUS	214.90	-0.000750	0	0	0	0
POTASSIUM	766.40	0	0	0	0	0
SELENIUM	196.00	-0.0000300	0	0	0	0
SILICON	212.40	0	0	0	0	0
SILVER	328.00	0	0	0	0	0
SODIUM	589.50	0	0	0	0	0
STRONTIUM	407.80	0	0	0	0	0
THALLIUM	190.80	-0.0000120	0	0	0	0
TIN	189.90	0	0	0	0	0
TITANIUM	337.30	0	0	0	0	0
VANADIUM	292.40	0	0	0	0	0
ZINC	206.20	0.0000420	0	0	0	0
ZIRCONIUM	339.20	0	0	0	0	0

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Microbac Laboratories Inc.
 INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Login Number: L11080332

Date: 01/25/2011

Instrument ID: ICP-THERMO2

Method: 6010B

Analyte	Wave Length	CA	CO	CR	CU	FE
ALUMINUM	308.20	0	-0.000820	0	0	0
ANTIMONY	206.80	0	0	0.00950	0	0.0000560
ARSENIC	189.00	0	0	0.000490	0	-0.0000120
BARIUM	455.40	0	0	0	0	0
BERYLLIUM	313.00	0	0	0	0	0
BORON	249.70	0	0.00343	0	0	-0.000619
CADMIUM	228.80	0	-0.00200	0	0	-0.00000800
CALCIUM	422.70	0	0	0	0	0
CHROMIUM	267.70	0	0	0	0	0.0000530
COBALT	228.60	0	0	0.000108	0	0
COPPER	224.70	0	0.0000770	0	0	0.000196
IRON	261.20	0	0	0	0	0
LEAD	220.30	0	-0.0000930	-0.000172	0.000809	0
LITHIUM	670.80	0	0	0	0	0
MAGNESIUM	279.10	0	0	0	0	0
MANGANESE	257.60	0	0	-0.0000920	0	0
MOLYBDENUM	202.03	0	0	0	0	0
NICKEL	231.60	0	0.000100	0	0	0.0000320
PHOSPHORUS	214.90	0	0	0	0.00200	0.00120
POTASSIUM	766.40	0	0	0	0	0
SELENIUM	196.00	0	0	0	0	0
SILICON	212.40	0	0	0	0	0
SILVER	328.00	0	0	0	0	0
SODIUM	589.50	0	0	0	0	0
STRONTIUM	407.80	0.0000570	0	0	0	0
THALLIUM	190.80	0	0.00397	0.000276	0	0
TIN	189.90	0	0	0	0	0
TITANIUM	337.30	0	0	0	0	0
VANADIUM	292.40	0	0	0	0	-0.00000200
ZINC	206.20	0	0	0	0	0
ZIRCONIUM	339.20	0	0	0	0	-0.0000300

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Microbac Laboratories Inc.
 INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Login Number: L11080332

Date: 01/25/2011

Instrument ID: ICP-THERMO2

Method: 6010B

Analyte	Wave Length	LI	MG	MN	MO	NA
ALUMINUM	308.20	0	0	0	0.0153	0
ANTIMONY	206.80	0	0	0	0.000670	0
ARSENIC	189.00	0	0	0	0.00109	0
BARIUM	455.40	0	0	0	0	0
BERYLLIUM	313.00	0	0	0	0	0
BORON	249.70	0	0	0	-0.00169	0
CADMIUM	228.80	0	0	0	0.0000220	0
CALCIUM	422.70	0	0	0	0	0
CHROMIUM	267.70	0	0	0.000160	0	0
COBALT	228.60	0	0	0	-0.000983	0
COPPER	224.70	0	0	0	0.00274	0
IRON	261.20	0	0	0	0	0
LEAD	220.30	0	0	0	-0.00183	0
LITHIUM	670.80	0	0	0	0	0
MAGNESIUM	279.10	0	0	-0.00190	-0.0110	0
MANGANESE	257.60	0	0.00000900	0	0	0
MOLYBDENUM	202.03	0	0	0	0	0
NICKEL	231.60	0	0	0	0	0
PHOSPHORUS	214.90	0	0	0	0.00800	0
POTASSIUM	766.40	0	0	0	0	0
SELENIUM	196.00	0	0	0	0.000156	0
SILICON	212.40	0	0	0	0.0187	0
SILVER	328.00	0	0	0	-0.0000440	0
SODIUM	589.50	0	0	0	0	0
STRONTIUM	407.80	0	0	0	0	0
THALLIUM	190.80	0	0	0	0	0
TIN	189.90	0	0	0	0	0
TITANIUM	337.30	0	0	0	-0.000153	0
VANADIUM	292.40	0	0	0	-0.00778	0
ZINC	206.20	0	0	0	0	0
ZIRCONIUM	339.20	0	0	0	0	0

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Microbac Laboratories Inc.
 INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Login Number: L11080332

Date: 01/25/2011

Instrument ID: ICP-THERMO2

Method: 6010B

Analyte	Wave Length	NI	SB	SN	SR	TI
ALUMINUM	308.20	0	0	0	0	0
ANTIMONY	206.80	0	0	-0.00840	0	-0.000990
ARSENIC	189.00	0	0	0	0	0
BARIUM	455.40	0	0	0	0	0
BERYLLIUM	313.00	0	0	0	0	0
BORON	249.70	0	0	0	0	0
CADMIUM	228.80	-0.000128	0	0	0	0
CALCIUM	422.70	0	0	0	0	0
CHROMIUM	267.70	0	0	0	0	0.0000550
COBALT	228.60	0.000175	0	0	0	0.00188
COPPER	224.70	-0.0120	0	0	0	0.000269
IRON	261.20	0	0	0	0	0
LEAD	220.30	0.000110	0	0	0	0
LITHIUM	670.80	0	0	0	0	0
MAGNESIUM	279.10	0	0	0	0	-0.00290
MANGANESE	257.60	0	0	0	0	0
MOLYBDENUM	202.03	0	0	0	0	0
NICKEL	231.60	0	0	0	0	0
PHOSPHORUS	214.90	0	0	0	0	0
POTASSIUM	766.40	0	0	0	0	0
SELENIUM	196.00	0	0	0	0	0
SILICON	212.40	0	0	0	0	0
SILVER	328.00	0	0	0	0	-0.00620
SODIUM	589.50	0	0	0	0	0
STRONTIUM	407.80	0	0	0	0	0
THALLIUM	190.80	0	0	0	0	-0.00170
TIN	189.90	0	0	0	0	-0.00220
TITANIUM	337.30	0	0	0	0	0
VANADIUM	292.40	0	0	0	0	0.000824
ZINC	206.20	0	0	0	0	0
ZIRCONIUM	339.20	0	0	0	0	0

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Microbac Laboratories Inc.
 INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Login Number: L11080332

Date: 01/25/2011

Instrument ID: ICP-THERMO2

Method: 6010B

Analyte	Wave Length	v	ZN	ZR
ALUMINUM	308.20	0.00300	0	0
ANTIMONY	206.80	-0.00438	0	0
ARSENIC	189.00	0.000107	0	0
BARIUM	455.40	0	0	0
BERYLLIUM	313.00	0	0	0
BORON	249.70	0	0	0
CADMIUM	228.80	0.0000820	0	0
CALCIUM	422.70	0	0	0
CHROMIUM	267.70	0	0	0
COBALT	228.60	0.0000200	0	0
COPPER	224.70	0	0	0
IRON	261.20	0	0	0
LEAD	220.30	-0.000126	0	0
LITHIUM	670.80	0	0	0
MAGNESIUM	279.10	0	0	0
MANGANESE	257.60	0	0	0
MOLYBDENUM	202.03	-0.000110	0	0
NICKEL	231.60	0	0	0
PHOSPHORUS	214.90	-0.00500	0	0.00200
POTASSIUM	766.40	0	0	0
SELENIUM	196.00	0	0	0
SILICON	212.40	0	0	0
SILVER	328.00	-0.00617	0	0
SODIUM	589.50	0	0	0
STRONTIUM	407.80	0	0	0
THALLIUM	190.80	-0.0282	0	0
TIN	189.90	0	0	0
TITANIUM	337.30	0	0	0
VANADIUM	292.40	0	0	0
ZINC	206.20	0	0	0
ZIRCONIUM	339.20	0	0	0

CORR_FACTORS - Modified 03/05/2008
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Microbac Laboratories Inc.
LINEAR RANGE (QUARTERLY)

Login Number: L11080332
Instrument ID: ICP-THERMO2

Date: 07/08/2011
Method: 6010B

Analyte	Integration Time (Sec.)	Concentration (mg/L)
Aluminum	10.00	810.0
Antimony	10.00	90.0
Arsenic	10.00	90.0
Barium	10.00	45.0
Beryllium	15.00	4.5
Boron	10.00	90.0
Cadmium	10.00	16.2
Calcium	10.00	900.0
Chromium	10.00	45.0
Cobalt	10.00	90.0
Copper	10.00	180.0
Iron	5.00	900.0
Lead	10.00	180.0
Lithium	10.00	90.0
Magnesium	15.00	900.0
Manganese	15.00	180.0
Molybdenum	10.00	9.0
Nickel	10.00	90.0
Phosphorus	10.00	900.0
Potassium	10.00	315.0
Selenium	10.00	90.0
Silicon	10.00	90.0
Silver	5.00	9.0
Sodium	10.00	315.0
Strontium	10.00	4.5
Thallium	10.00	9.0
Tin	10.00	90.0
Titanium	15.00	90.0
Vanadium	10.00	90.0
Zinc	10.00	45.0
Zirconium	10.00	45.0

Comments:

All analytes passed acceptance criteria at the specified concentration.



2.2 General Chemistry Data

2.2.1 Percent Solids Data

2.2.1.1 Raw Data

LABORATORY REPORT

L11080332

09/01/11 11:14

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta, OH 45750
(740) 373-4071

For

Account Name: CH2MHILL, Inc
CH2MHILL
1034 S. Brentwood Blvd, Suite 2300
Richmond Heights, MO 63117
Attention: Shane Lowe

Project Number: 2736.103
Project: DOW WATERLOO Soil & GW
Site: WATERLOO
Invoice Number: 619844
P.O. Number: 416903-1

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
DE-17E-07262011	L11080332-01	D2216-90	1	09-AUG-11
DE-17F-07262011	L11080332-02	D2216-90	1	09-AUG-11
DE-17G-07262011	L11080332-03	D2216-90	1	09-AUG-11
DE-17G-07262011-MS	L11080332-04	D2216-90	1	09-AUG-11
DE-17G-07262011-MSD	L11080332-05	D2216-90	1	09-AUG-11
DE-18A-07252011	L11080332-06	D2216-90	1	09-AUG-11
DE-18B-07252011	L11080332-07	D2216-90	1	09-AUG-11
DE-18C-07252011	L11080332-08	D2216-90	1	09-AUG-11
DE-18D-07252011	L11080332-09	D2216-90	1	09-AUG-11
DE-18D-07252011-DUP	L11080332-10	D2216-90	1	09-AUG-11
DE-18E-07252011	L11080332-11	D2216-90	1	09-AUG-11
DE-18F-07252011	L11080332-12	D2216-90	1	09-AUG-11
DE-18G-07252011	L11080332-13	D2216-90	1	09-AUG-11
DE-19A-07252011	L11080332-14	D2216-90	1	09-AUG-11
DE-19B-07252011	L11080332-15	D2216-90	1	09-AUG-11
DE-19C-07252011	L11080332-16	D2216-90	1	09-AUG-11
DE-19D-07252011	L11080332-17	D2216-90	1	09-AUG-11
DE-19D-07252011-DUP	L11080332-18	D2216-90	1	09-AUG-11
DE-19E-07252011	L11080332-19	D2216-90	1	09-AUG-11
DE-19E-07252011-MS	L11080332-20	D2216-90	1	09-AUG-11
DE-19E-07252011-MSD	L11080332-21	D2216-90	1	09-AUG-11
DE-19F-07252011	L11080332-22	D2216-90	1	09-AUG-11
DE-19G-07252011	L11080332-23	D2216-90	1	09-AUG-11
DE-20A-07252011	L11080332-24	D2216-90	1	09-AUG-11
DE-20G-07252011	L11080332-25	D2216-90	1	09-AUG-11
DE-26C-07272011	L11080332-26	D2216-90	1	09-AUG-11
DE-26D-07272011	L11080332-27	D2216-90	1	09-AUG-11
DE-26E-07272011	L11080332-28	D2216-90	1	09-AUG-11

L1_A_PROD - Modified 03/06/2008
PDF File ID: 2135094
Report generated: 09/01/2011 11:14

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LABORATORY REPORT

L11080332

09/01/11 11:14

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
DE-26F-07272011	L11080332-29	D2216-90	1	09-AUG-11
DE-26G-07272011	L11080332-30	D2216-90	1	09-AUG-11
DE-26G-07272011-MS	L11080332-31	D2216-90	1	09-AUG-11
DE-26G-07272011-MSD	L11080332-32	D2216-90	1	09-AUG-11
DE-25A-07262011	L11080332-33	D2216-90	1	09-AUG-11
DE-25B-07262011	L11080332-34	D2216-90	1	09-AUG-11
DE-25C-07262011	L11080332-35	D2216-90	1	09-AUG-11
DE-25C-07262011-DUP	L11080332-36	D2216-90	1	09-AUG-11
DE-25D-07262011	L11080332-37	D2216-90	1	09-AUG-11
DE-25E-07262011	L11080332-38	D2216-90	1	09-AUG-11
DE-25F-07262011	L11080332-39	D2216-90	1	09-AUG-11
DE-25G-07262011	L11080332-40	D2216-90	1	09-AUG-11
DE-24A-07262011	L11080332-41	D2216-90	1	09-AUG-11
DE-24G-07262011	L11080332-42	D2216-90	1	09-AUG-11
DE-23A-07262011	L11080332-43	D2216-90	1	09-AUG-11
DE-23B-07262011	L11080332-44	D2216-90	1	09-AUG-11
DE-23C-07262011	L11080332-45	D2216-90	1	09-AUG-11
DE-23D-07262011	L11080332-46	D2216-90	1	09-AUG-11
DE-23E-07262011	L11080332-47	D2216-90	1	09-AUG-11
DE-23E-07262011-DUP	L11080332-48	D2216-90	1	09-AUG-11
DE-23F-07262011	L11080332-49	D2216-90	1	09-AUG-11
DE-23G-07262011	L11080332-50	D2216-90	1	09-AUG-11
DE-22A-07262011	L11080332-51	D2216-90	1	09-AUG-11
DE-22G-07262011	L11080332-52	D2216-90	1	09-AUG-11
DE-21A-07262011	L11080332-53	D2216-90	1	09-AUG-11
DE-21B-07262011	L11080332-54	D2216-90	1	09-AUG-11
DE-21C-07262011	L11080332-55	D2216-90	1	09-AUG-11
DE-21D-07262011	L11080332-56	D2216-90	1	09-AUG-11
DE-21D-07262011-DUP	L11080332-57	D2216-90	1	09-AUG-11
DE-21E-07262011	L11080332-58	D2216-90	1	09-AUG-11
DE-21E-07262011-MS	L11080332-59	D2216-90	1	09-AUG-11
DE-21E-07262011-MSD	L11080332-60	D2216-90	1	09-AUG-11
DE-21G-07262011	L11080332-61	D2216-90	1	09-AUG-11
DE-13B-07262011	L11080332-62	D2216-90	1	09-AUG-11
DE-13C-07262011	L11080332-63	D2216-90	1	09-AUG-11
DE-13D-07262011	L11080332-64	D2216-90	1	09-AUG-11
DE-13E-07262011	L11080332-65	D2216-90	1	09-AUG-11
DE-13E-07262011-MS	L11080332-66	D2216-90	1	09-AUG-11
DE-13E-07262011-MSD	L11080332-67	D2216-90	1	09-AUG-11
DE-13F-07262011	L11080332-68	D2216-90	1	09-AUG-11
DE-13G-07262011	L11080332-69	D2216-90	1	09-AUG-11
DE-13G-07262011-DUP	L11080332-70	D2216-90	1	09-AUG-11
DE-14B-07262011	L11080332-71	D2216-90	1	09-AUG-11
DE-14C-07262011	L11080332-72	D2216-90	1	09-AUG-11
DE-14D-07262011	L11080332-73	D2216-90	1	09-AUG-11

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PDF File ID: 2135094
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LABORATORY REPORT

L11080332

09/01/11 11:14

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
DE-14E-07262011	L11080332-74	D2216-90	1	09-AUG-11
DE-14F-07262011	L11080332-75	D2216-90	1	09-AUG-11
DE-14F-07262011-DUP	L11080332-76	D2216-90	1	09-AUG-11
DE-14G-07262011	L11080332-77	D2216-90	1	09-AUG-11
DE-15B-07262011	L11080332-78	D2216-90	1	09-AUG-11
DE-15G-07262011	L11080332-79	D2216-90	1	09-AUG-11
DE-15G-07262011-DUP	L11080332-80	D2216-90	1	09-AUG-11
DE-16B-07262011	L11080332-81	D2216-90	1	09-AUG-11
DE-16G-07262011	L11080332-82	D2216-90	1	09-AUG-11
DE-17A-07262011	L11080332-83	D2216-90	1	09-AUG-11
DE-17B-07262011	L11080332-84	D2216-90	1	09-AUG-11
DE-17C-07262011	L11080332-85	D2216-90	1	09-AUG-11
DE-17C-07262011-DUP	L11080332-86	D2216-90	1	09-AUG-11
DE-17D-07262011	L11080332-87	D2216-90	1	09-AUG-11

L1_A_PROD - Modified 03/06/2008
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Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-01	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-17E-07262011	Prep Method: D2216-90	Prep Date: 08/12/2011 08:38
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG372962	Analyst: JDH	Run Date: 08/12/2011 08:38
Collect Date: 07/26/2011 14:55	Dilution: 1	File ID: B1.372962-0116
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	90.3		1.00	1.00



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-02	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-17F-07262011	Prep Method: D2216-90	Prep Date: 08/12/2011 08:38
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG372962	Analyst: JDH	Run Date: 08/12/2011 08:38
Collect Date: 07/26/2011 14:57	Dilution: 1	File ID: B1.372962-0117
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	91.2		1.00	1.00



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-03	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-17G-07262011	Prep Method: D2216-90	Prep Date: 08/12/2011 08:38
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG372962	Analyst: JDH	Run Date: 08/12/2011 08:38
Collect Date: 07/26/2011 14:59	Dilution: 1	File ID: B1.372962-0118
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	89.1		1.00	1.00



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-04	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-17G-07262011-MS	Prep Method: D2216-90	Prep Date: 08/12/2011 08:38
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG372962	Analyst: JDH	Run Date: 08/12/2011 08:38
Collect Date: 07/26/2011 14:59	Dilution: 1	File ID: B1.372962-0119
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	89.1		1.00	1.00



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-05	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-17G-07262011-MSD	Prep Method: D2216-90	Prep Date: 08/12/2011 08:38
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG372962	Analyst: JDH	Run Date: 08/12/2011 08:38
Collect Date: 07/26/2011 14:59	Dilution: 1	File ID: B1.372962-0120
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	89.1		1.00	1.00



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-06	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-18A-07252011	Prep Method: D2216-90	Prep Date: 08/12/2011 08:38
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG372962	Analyst: JDH	Run Date: 08/12/2011 08:38
Collect Date: 07/25/2011 16:00	Dilution: 1	File ID: B1.372962-0101
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	93.5		1.00	1.00



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-07
 Client ID: DE-18E-07252011
 Matrix: Soil
 Workgroup Number: WG372962
 Collect Date: 07/25/2011 16:03
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: D2216-90
 Analytical Method: D2216-90
 Analyst: JDH
 Dilution: 1
 Units: weight %

Instrument: BAL001
 Prep Date: 08/12/2011 08:38
 Cal Date:
 Run Date: 08/12/2011 08:38
 File ID: B1.372962-0102

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	94.9		1.00	1.00



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-08
 Client ID: DE-18C-07252011
 Matrix: Soil
 Workgroup Number: WG372962
 Collect Date: 07/25/2011 16:10
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: D2216-90
 Analytical Method: D2216-90
 Analyst: JDH
 Dilution: 1
 Units: weight %

Instrument: BAL001
 Prep Date: 08/12/2011 08:38
 Cal Date:
 Run Date: 08/12/2011 08:38
 File ID: B1.372962-0103

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	88.5		1.00	1.00



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-09	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-18D-07252011	Prep Method: D2216-90	Prep Date: 08/12/2011 08:38
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG372962	Analyst: JDH	Run Date: 08/12/2011 08:38
Collect Date: 07/25/2011 16:12	Dilution: 1	File ID: B1.372962-0104
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	84.0		1.00	1.00



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-10	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-18D-07252011-DUP	Prep Method: D2216-90	Prep Date: 08/12/2011 08:38
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG372962	Analyst: JDH	Run Date: 08/12/2011 08:38
Collect Date: 07/25/2011 16:12	Dilution: 1	File ID: B1.372962-0105
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	85.7		1.00	1.00



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-11	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-18E-07252011	Prep Method: D2216-90	Prep Date: 08/12/2011 08:38
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG372962	Analyst: JDH	Run Date: 08/12/2011 08:38
Collect Date: 07/25/2011 16:18	Dilution: 1	File ID: B1.372962-0106
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	70.2		1.00	1.00



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-12	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-18F-07252011	Prep Method: D2216-90	Prep Date: 08/12/2011 08:38
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG372962	Analyst: JDH	Run Date: 08/12/2011 08:38
Collect Date: 07/25/2011 16:25	Dilution: 1	File ID: B1.372962-0107
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	56.5		1.00	1.00



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-13	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-18G-07252011	Prep Method: D2216-90	Prep Date: 08/12/2011 08:38
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG372962	Analyst: JDH	Run Date: 08/12/2011 08:38
Collect Date: 07/25/2011 16:30	Dilution: 1	File ID: B1.372962-0108
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	82.0		1.00	1.00



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-14	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-19A-07252011	Prep Method: D2216-90	Prep Date: 08/12/2011 08:38
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG372962	Analyst: JDH	Run Date: 08/12/2011 08:38
Collect Date: 07/25/2011 16:55	Dilution: 1	File ID: B1.372962-0109
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	91.4		1.00	1.00



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-15	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-19E-07252011	Prep Method: D2216-90	Prep Date: 08/12/2011 08:38
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG372962	Analyst: JDH	Run Date: 08/12/2011 08:38
Collect Date: 07/25/2011 16:57	Dilution: 1	File ID: B1.372962-0110
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	95.1		1.00	1.00



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-16	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-19C-07252011	Prep Method: D2216-90	Prep Date: 08/12/2011 08:38
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG372962	Analyst: JDH	Run Date: 08/12/2011 08:38
Collect Date: 07/25/2011 16:58	Dilution: 1	File ID: B1.372962-0111
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	86.6		1.00	1.00



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-17
 Client ID: DE-19D-07252011
 Matrix: Soil
 Workgroup Number: WG372962
 Collect Date: 07/25/2011 17:00
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: D2216-90
 Analytical Method: D2216-90
 Analyst: JDH
 Dilution: 1
 Units: weight %

Instrument: BAL001
 Prep Date: 08/12/2011 08:38
 Cal Date:
 Run Date: 08/12/2011 08:38
 File ID: B1.372962-0112

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	87.3		1.00	1.00



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-18	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-19D-07252011-DUP	Prep Method: D2216-90	Prep Date: 08/12/2011 08:38
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG372962	Analyst: JDH	Run Date: 08/12/2011 08:38
Collect Date: 07/25/2011 17:00	Dilution: 1	File ID: B1.372962-0113
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	86.6		1.00	1.00



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-19	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-19E-07252011	Prep Method: D2216-90	Prep Date: 08/12/2011 08:38
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG372962	Analyst: JDH	Run Date: 08/12/2011 08:38
Collect Date: 07/25/2011 17:06	Dilution: 1	File ID: B1.372962-0114
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	84.8		1.00	1.00



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-20	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-19E-07252011-MS	Prep Method: D2216-90	Prep Date: 08/12/2011 08:38
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG372962	Analyst: JDH	Run Date: 08/12/2011 08:38
Collect Date: 07/25/2011 17:06	Dilution: 1	File ID: B1.372962-0115
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	84.8		1.00	1.00



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-21	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-19E-07252011-MSD	Prep Method: D2216-90	Prep Date: 08/12/2011 08:38
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG372962	Analyst: JDH	Run Date: 08/12/2011 08:38
Collect Date: 07/25/2011 17:06	Dilution: 1	File ID: B1.372962-0121
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	84.8		1.00	1.00



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-22
 Client ID: DE-19F-07252011
 Matrix: Soil
 Workgroup Number: WG372962
 Collect Date: 07/25/2011 17:09
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: D2216-90
 Analytical Method: D2216-90
 Analyst: JDH
 Dilution: 1
 Units: weight %

Instrument: BAL001
 Prep Date: 08/12/2011 08:38
 Cal Date:
 Run Date: 08/12/2011 08:38
 File ID: B1.372962-0122

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	85.3		1.00	1.00



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-23
 Client ID: DE-19G-07252011
 Matrix: Soil
 Workgroup Number: WG372962
 Collect Date: 07/25/2011 17:12
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: D2216-90
 Analytical Method: D2216-90
 Analyst: JDH
 Dilution: 1
 Units: weight %

Instrument: BAL001
 Prep Date: 08/12/2011 08:38
 Cal Date:
 Run Date: 08/12/2011 08:38
 File ID: B1.372962-0123

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	85.5		1.00	1.00



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-24	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-20A-07252011	Prep Method: D2216-90	Prep Date: 08/12/2011 08:38
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG372962	Analyst: JDH	Run Date: 08/12/2011 08:38
Collect Date: 07/25/2011 17:30	Dilution: 1	File ID: B1.372962-0124
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	94.1		1.00	1.00



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-25	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-20G-07252011	Prep Method: D2216-90	Prep Date: 08/12/2011 08:38
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG372962	Analyst: JDH	Run Date: 08/12/2011 08:38
Collect Date: 07/25/2011 17:45	Dilution: 1	File ID: B1.372962-0125
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	65.7		1.00	1.00



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-26	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-26C-07272011	Prep Method: D2216-90	Prep Date: 08/12/2011 08:38
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG372962	Analyst: JDH	Run Date: 08/12/2011 08:38
Collect Date: 07/27/2011 09:30	Dilution: 1	File ID: B1.372962-0126
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	98.7		1.00	1.00



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-27	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-26D-07272011	Prep Method: D2216-90	Prep Date: 08/12/2011 08:38
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG372962	Analyst: JDH	Run Date: 08/12/2011 08:38
Collect Date: 07/27/2011 09:40	Dilution: 1	File ID: B1.372962-0127
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	88.9		1.00	1.00



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-28	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-26E-07272011	Prep Method: D2216-90	Prep Date: 08/12/2011 08:38
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG372962	Analyst: JDH	Run Date: 08/12/2011 08:38
Collect Date: 07/27/2011 09:48	Dilution: 1	File ID: B1.372962-0128
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	86.0		1.00	1.00



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-29	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-26F-07272011	Prep Method: D2216-90	Prep Date: 08/12/2011 08:38
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG372962	Analyst: JDH	Run Date: 08/12/2011 08:38
Collect Date: 07/27/2011 09:50	Dilution: 1	File ID: B1.372962-0129
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	79.4		1.00	1.00



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-30
 Client ID: DE-26G-07272011
 Matrix: Soil
 Workgroup Number: WG372962
 Collect Date: 07/27/2011 10:00
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: D2216-90
 Analytical Method: D2216-90
 Analyst: JDH
 Dilution: 1
 Units: weight %

Instrument: BAL001
 Prep Date: 08/12/2011 08:38
 Cal Date:
 Run Date: 08/12/2011 08:38
 File ID: B1.372962-0130

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	79.9		1.00	1.00



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-31
 Client ID: DE-26G-07272011-MS
 Matrix: Soil
 Workgroup Number: WG372962
 Collect Date: 07/27/2011 10:00
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: D2216-90
 Analytical Method: D2216-90
 Analyst: JDH
 Dilution: 1
 Units: weight %

Instrument: BAL001
 Prep Date: 08/12/2011 08:38
 Cal Date:
 Run Date: 08/12/2011 08:38
 File ID: B1.372962-0131

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	79.9		1.00	1.00



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-32	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-26G-07272011-MSD	Prep Method: D2216-90	Prep Date: 08/12/2011 08:38
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG372962	Analyst: JDH	Run Date: 08/12/2011 08:38
Collect Date: 07/27/2011 10:00	Dilution: 1	File ID: B1.372962-0132
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	79.9		1.00	1.00



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-33	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-25A-07262011	Prep Method: D2216-90	Prep Date: 08/12/2011 08:38
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG372962	Analyst: JDH	Run Date: 08/12/2011 08:38
Collect Date: 07/26/2011 13:45	Dilution: 1	File ID: B1.372962-0133
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	83.8		1.00	1.00



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-34	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-25E-07262011	Prep Method: D2216-90	Prep Date: 08/12/2011 08:38
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG372962	Analyst: JDH	Run Date: 08/12/2011 08:38
Collect Date: 07/26/2011 13:48	Dilution: 1	File ID: B1.372962-0134
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	95.4		1.00	1.00



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-35	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-25C-07262011	Prep Method: D2216-90	Prep Date: 08/12/2011 08:38
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG372962	Analyst: JDH	Run Date: 08/12/2011 08:38
Collect Date: 07/26/2011 13:51	Dilution: 1	File ID: B1.372962-0135
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	94.9		1.00	1.00



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-36
 Client ID: DE-25C-07262011-DUP
 Matrix: Soil
 Workgroup Number: WG372962
 Collect Date: 07/26/2011 13:51
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: D2216-90
 Analytical Method: D2216-90
 Analyst: JDH
 Dilution: 1
 Units: weight %

Instrument: BAL001
 Prep Date: 08/12/2011 08:38
 Cal Date:
 Run Date: 08/12/2011 08:38
 File ID: B1.372962-0136

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	94.8		1.00	1.00



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-37
 Client ID: DE-25D-07262011
 Matrix: Soil
 Workgroup Number: WG372962
 Collect Date: 07/26/2011 14:00
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: D2216-90
 Analytical Method: D2216-90
 Analyst: JDH
 Dilution: 1
 Units: weight %

Instrument: BAL001
 Prep Date: 08/12/2011 08:38
 Cal Date:
 Run Date: 08/12/2011 08:38
 File ID: B1.372962-0137

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	89.6		1.00	1.00



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-38	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-25E-07262011	Prep Method: D2216-90	Prep Date: 08/12/2011 08:38
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG372962	Analyst: JDH	Run Date: 08/12/2011 08:38
Collect Date: 07/26/2011 14:15	Dilution: 1	File ID: B1.372962-0138
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	92.1		1.00	1.00



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-39	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-25F-07262011	Prep Method: D2216-90	Prep Date: 08/12/2011 08:38
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG372962	Analyst: JDH	Run Date: 08/12/2011 08:38
Collect Date: 07/26/2011 14:20	Dilution: 1	File ID: B1.372962-0139
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	90.3		1.00	1.00



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-40	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-25G-07262011	Prep Method: D2216-90	Prep Date: 08/12/2011 08:38
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG372962	Analyst: JDH	Run Date: 08/12/2011 08:38
Collect Date: 07/26/2011 14:25	Dilution: 1	File ID: B1.372962-0140
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	90.3		1.00	1.00



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-41	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-24A-07262011	Prep Method: D2216-90	Prep Date: 08/12/2011 08:38
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG372962	Analyst: JDH	Run Date: 08/12/2011 08:38
Collect Date: 07/26/2011 11:20	Dilution: 1	File ID: B1.372962-0141
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	76.2		1.00	1.00



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-42	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-24G-07262011	Prep Method: D2216-90	Prep Date: 08/12/2011 08:38
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG372962	Analyst: JDH	Run Date: 08/12/2011 08:38
Collect Date: 07/26/2011 11:25	Dilution: 1	File ID: B1.372962-0142
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	92.7		1.00	1.00



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-43
 Client ID: DE-23A-07262011
 Matrix: Soil
 Workgroup Number: WG372962
 Collect Date: 07/26/2011 10:45
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: D2216-90
 Analytical Method: D2216-90
 Analyst: JDH
 Dilution: 1
 Units: weight %

Instrument: BAL001
 Prep Date: 08/12/2011 08:38
 Cal Date:
 Run Date: 08/12/2011 08:38
 File ID: B1.372962-0143

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	97.1		1.00	1.00



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-44	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-23E-07262011	Prep Method: D2216-90	Prep Date: 08/12/2011 08:38
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG372962	Analyst: JDH	Run Date: 08/12/2011 08:38
Collect Date: 07/26/2011 10:48	Dilution: 1	File ID: B1.372962-0144
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	96.0		1.00	1.00



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-45	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-23C-07262011	Prep Method: D2216-90	Prep Date: 08/12/2011 08:38
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG372962	Analyst: JDH	Run Date: 08/12/2011 08:38
Collect Date: 07/26/2011 10:51	Dilution: 1	File ID: B1.372962-0145
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	94.2		1.00	1.00



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-46
 Client ID: DE-23D-07262011
 Matrix: Soil
 Workgroup Number: WG372962
 Collect Date: 07/26/2011 11:01
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: D2216-90
 Analytical Method: D2216-90
 Analyst: JDH
 Dilution: 1
 Units: weight %

Instrument: BAL001
 Prep Date: 08/12/2011 08:38
 Cal Date:
 Run Date: 08/12/2011 08:38
 File ID: B1.372962-0146

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	90.2		1.00	1.00



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-47	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-23E-07262011	Prep Method: D2216-90	Prep Date: 08/12/2011 08:38
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG372962	Analyst: JDH	Run Date: 08/12/2011 08:38
Collect Date: 07/26/2011 11:06	Dilution: 1	File ID: B1.372962-0147
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	91.4		1.00	1.00



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-48	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-23E-07262011-DUP	Prep Method: D2216-90	Prep Date: 08/12/2011 08:38
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG372962	Analyst: JDH	Run Date: 08/12/2011 08:38
Collect Date: 07/26/2011 11:06	Dilution: 1	File ID: B1.372962-0148
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	90.9		1.00	1.00



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-49	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-23F-07262011	Prep Method: D2216-90	Prep Date: 08/12/2011 08:38
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG372962	Analyst: JDH	Run Date: 08/12/2011 08:38
Collect Date: 07/26/2011 13:15	Dilution: 1	File ID: B1.372962-0149
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	88.5		1.00	1.00



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-50	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-23G-07262011	Prep Method: D2216-90	Prep Date: 08/12/2011 08:38
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG372962	Analyst: JDH	Run Date: 08/12/2011 08:38
Collect Date: 07/26/2011 11:10	Dilution: 1	File ID: B1.372962-0150
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	91.1		1.00	1.00



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-51	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-22A-07262011	Prep Method: D2216-90	Prep Date: 08/12/2011 08:38
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG372962	Analyst: JDH	Run Date: 08/12/2011 08:38
Collect Date: 07/26/2011 10:08	Dilution: 1	File ID: B1.372962-0151
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	93.5		1.00	1.00



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-52	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-22G-07262011	Prep Method: D2216-90	Prep Date: 08/12/2011 08:38
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG372962	Analyst: JDH	Run Date: 08/12/2011 08:38
Collect Date: 07/26/2011 10:11	Dilution: 1	File ID: B1.372962-0152
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	89.1		1.00	1.00



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-53	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-21A-07262011	Prep Method: D2216-90	Prep Date: 08/12/2011 08:38
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG372962	Analyst: JDH	Run Date: 08/12/2011 08:38
Collect Date: 07/26/2011 09:39	Dilution: 1	File ID: B1.372962-0153
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	92.3		1.00	1.00



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-54
 Client ID: DE-21E-07262011
 Matrix: Soil
 Workgroup Number: WG372962
 Collect Date: 07/26/2011 09:42
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: D2216-90
 Analytical Method: D2216-90
 Analyst: JDH
 Dilution: 1
 Units: weight %

Instrument: BAL001
 Prep Date: 08/12/2011 08:38
 Cal Date:
 Run Date: 08/12/2011 08:38
 File ID: B1.372962-0154

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	93.8		1.00	1.00



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-55	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-21C-07262011	Prep Method: D2216-90	Prep Date: 08/12/2011 08:38
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG372962	Analyst: JDH	Run Date: 08/12/2011 08:38
Collect Date: 07/26/2011 09:46	Dilution: 1	File ID: B1.372962-0155
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	93.5		1.00	1.00



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-56
 Client ID: DE-21D-07262011
 Matrix: Soil
 Workgroup Number: WG372962
 Collect Date: 07/26/2011 09:52
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: D2216-90
 Analytical Method: D2216-90
 Analyst: JDH
 Dilution: 1
 Units: weight %

Instrument: BAL001
 Prep Date: 08/12/2011 08:38
 Cal Date:
 Run Date: 08/12/2011 08:38
 File ID: B1.372962-0156

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	55.3		1.00	1.00



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-57	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-21D-07262011-DUP	Prep Method: D2216-90	Prep Date: 08/12/2011 08:38
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG372962	Analyst: JDH	Run Date: 08/12/2011 08:38
Collect Date: 07/26/2011 09:52	Dilution: 1	File ID: B1.372962-0157
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	63.5		1.00	1.00



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-58	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-21E-07262011	Prep Method: D2216-90	Prep Date: 08/12/2011 08:38
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG372962	Analyst: JDH	Run Date: 08/12/2011 08:38
Collect Date: 07/26/2011 09:55	Dilution: 1	File ID: B1.372962-0158
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	79.8		1.00	1.00



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-59	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-21E-07262011-MS	Prep Method: D2216-90	Prep Date: 08/12/2011 08:38
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG372962	Analyst: JDH	Run Date: 08/12/2011 08:38
Collect Date: 07/26/2011 09:55	Dilution: 1	File ID: B1.372962-0159
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	79.8		1.00	1.00



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-60	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-21E-07262011-MSD	Prep Method: D2216-90	Prep Date: 08/12/2011 08:38
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG372962	Analyst: JDH	Run Date: 08/12/2011 08:38
Collect Date: 07/26/2011 09:55	Dilution: 1	File ID: B1.372962-0160
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	79.8		1.00	1.00



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-61
 Client ID: DE-21G-07262011
 Matrix: Soil
 Workgroup Number: WG372962
 Collect Date: 07/26/2011 10:00
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: D2216-90
 Analytical Method: D2216-90
 Analyst: JDH
 Dilution: 1
 Units: weight %

Instrument: BAL001
 Prep Date: 08/12/2011 08:38
 Cal Date:
 Run Date: 08/12/2011 08:38
 File ID: B1.372962-0161

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	77.7		1.00	1.00



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-62	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-13E-07262011	Prep Method: D2216-90	Prep Date: 08/12/2011 08:38
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG372962	Analyst: JDH	Run Date: 08/12/2011 08:38
Collect Date: 07/26/2011 16:08	Dilution: 1	File ID: B1.372962-0162
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	98.0		1.00	1.00



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-63
 Client ID: DE-13C-07262011
 Matrix: Soil
 Workgroup Number: WG372962
 Collect Date: 07/26/2011 16:14
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: D2216-90
 Analytical Method: D2216-90
 Analyst: JDH
 Dilution: 1
 Units: weight %

Instrument: BAL001
 Prep Date: 08/12/2011 08:38
 Cal Date:
 Run Date: 08/12/2011 08:38
 File ID: B1.372962-0163

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	95.2		1.00	1.00



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-64	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-13D-07262011	Prep Method: D2216-90	Prep Date: 08/12/2011 08:38
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG372962	Analyst: JDH	Run Date: 08/12/2011 08:38
Collect Date: 07/26/2011 16:20	Dilution: 1	File ID: B1.372962-0164
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	89.2		1.00	1.00



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-65	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-13E-07262011	Prep Method: D2216-90	Prep Date: 08/12/2011 08:38
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG372962	Analyst: JDH	Run Date: 08/12/2011 08:38
Collect Date: 07/26/2011 16:24	Dilution: 1	File ID: B1.372962-0165
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	90.6		1.00	1.00



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-66	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-13E-07262011-MS	Prep Method: D2216-90	Prep Date: 08/12/2011 08:38
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG372962	Analyst: JDH	Run Date: 08/12/2011 08:38
Collect Date: 07/26/2011 16:24	Dilution: 1	File ID: B1.372962-0166
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	90.6		1.00	1.00



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-67	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-13E-07262011-MSD	Prep Method: D2216-90	Prep Date: 08/12/2011 08:38
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG372962	Analyst: JDH	Run Date: 08/12/2011 08:38
Collect Date: 07/26/2011 16:24	Dilution: 1	File ID: B1.372962-0167
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	90.6		1.00	1.00



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-68	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-13F-07262011	Prep Method: D2216-90	Prep Date: 08/12/2011 08:38
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG372962	Analyst: JDH	Run Date: 08/12/2011 08:38
Collect Date: 07/26/2011 16:32	Dilution: 1	File ID: B1.372962-0168
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	88.0		1.00	1.00



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-69	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-13G-07262011	Prep Method: D2216-90	Prep Date: 08/12/2011 08:38
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG372962	Analyst: JDH	Run Date: 08/12/2011 08:38
Collect Date: 07/26/2011 16:35	Dilution: 1	File ID: B1.372962-0169
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	82.1		1.00	1.00



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-70	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-13G-07262011-DUP	Prep Method: D2216-90	Prep Date: 08/12/2011 08:38
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG372962	Analyst: JDH	Run Date: 08/12/2011 08:38
Collect Date: 07/26/2011 16:35	Dilution: 1	File ID: B1.372962-0170
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	81.9		1.00	1.00



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-71	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-14E-07262011	Prep Method: D2216-90	Prep Date: 08/12/2011 08:38
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG372962	Analyst: JDH	Run Date: 08/12/2011 08:38
Collect Date: 07/26/2011 15:25	Dilution: 1	File ID: B1.372962-0171
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	95.1		1.00	1.00



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-72	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-14C-07262011	Prep Method: D2216-90	Prep Date: 08/12/2011 08:38
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG372962	Analyst: JDH	Run Date: 08/12/2011 08:38
Collect Date: 07/26/2011 15:26	Dilution: 1	File ID: B1.372962-0172
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	94.2		1.00	1.00



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-73	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-14D-07262011	Prep Method: D2216-90	Prep Date: 08/12/2011 08:38
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG372962	Analyst: JDH	Run Date: 08/12/2011 08:38
Collect Date: 07/26/2011 15:32	Dilution: 1	File ID: B1.372962-0173
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	87.5		1.00	1.00



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-74	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-14E-07262011	Prep Method: D2216-90	Prep Date: 08/12/2011 08:38
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG372962	Analyst: JDH	Run Date: 08/12/2011 08:38
Collect Date: 07/26/2011 15:40	Dilution: 1	File ID: B1.372962-0174
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	86.9		1.00	1.00



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-75	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-14F-07262011	Prep Method: D2216-90	Prep Date: 08/12/2011 08:38
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG372962	Analyst: JDH	Run Date: 08/12/2011 08:38
Collect Date: 07/26/2011 15:45	Dilution: 1	File ID: B1.372962-0175
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	88.8		1.00	1.00



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-76	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-14F-07262011-DUP	Prep Method: D2216-90	Prep Date: 08/12/2011 08:38
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG372962	Analyst: JDH	Run Date: 08/12/2011 08:38
Collect Date: 07/26/2011 15:45	Dilution: 1	File ID: B1.372962-0176
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	88.5		1.00	1.00



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-77	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-14G-07262011	Prep Method: D2216-90	Prep Date: 08/12/2011 08:38
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG372962	Analyst: JDH	Run Date: 08/12/2011 08:38
Collect Date: 07/26/2011 15:55	Dilution: 1	File ID: B1.372962-0177
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	86.1		1.00	1.00



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-78
 Client ID: DE-15E-07262011
 Matrix: Soil
 Workgroup Number: WG372962
 Collect Date: 07/26/2011 17:11
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: D2216-90
 Analytical Method: D2216-90
 Analyst: JDH
 Dilution: 1
 Units: weight %

Instrument: BAL001
 Prep Date: 08/12/2011 08:38
 Cal Date:
 Run Date: 08/12/2011 08:38
 File ID: B1.372962-0178

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	94.5		1.00	1.00



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-79	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-15G-07262011	Prep Method: D2216-90	Prep Date: 08/12/2011 08:38
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG372962	Analyst: JDH	Run Date: 08/12/2011 08:38
Collect Date: 07/26/2011 17:21	Dilution: 1	File ID: B1.372962-0179
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	85.2		1.00	1.00



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-80	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-15G-07262011-DUP	Prep Method: D2216-90	Prep Date: 08/12/2011 08:38
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG372962	Analyst: JDH	Run Date: 08/12/2011 08:38
Collect Date: 07/26/2011 17:21	Dilution: 1	File ID: B1.372962-0180
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	85.5		1.00	1.00



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-81	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-16E-07262011	Prep Method: D2216-90	Prep Date: 08/12/2011 08:38
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG372962	Analyst: JDH	Run Date: 08/12/2011 08:38
Collect Date: 07/26/2011 17:34	Dilution: 1	File ID: B1.372962-0181
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	97.9		1.00	1.00



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-82	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-16G-07262011	Prep Method: D2216-90	Prep Date: 08/12/2011 08:38
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG372962	Analyst: JDH	Run Date: 08/12/2011 08:38
Collect Date: 07/26/2011 17:38	Dilution: 1	File ID: B1.372962-0182
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	87.8		1.00	1.00



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-83	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-17A-07262011	Prep Method: D2216-90	Prep Date: 08/12/2011 08:38
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG372962	Analyst: JDH	Run Date: 08/12/2011 08:38
Collect Date: 07/26/2011 14:35	Dilution: 1	File ID: B1.372962-0183
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	94.8		1.00	1.00



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-84	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-17B-07262011	Prep Method: D2216-90	Prep Date: 08/12/2011 08:38
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG372962	Analyst: JDH	Run Date: 08/12/2011 08:38
Collect Date: 07/26/2011 14:38	Dilution: 1	File ID: B1.372962-0184
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	90.2		1.00	1.00



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-85	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-17C-07262011	Prep Method: D2216-90	Prep Date: 08/12/2011 08:38
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG372962	Analyst: JDH	Run Date: 08/12/2011 08:38
Collect Date: 07/26/2011 14:46	Dilution: 1	File ID: B1.372962-0185
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	90.9		1.00	1.00



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-86	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-17C-07262011-DUP	Prep Method: D2216-90	Prep Date: 08/12/2011 08:38
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG372962	Analyst: JDH	Run Date: 08/12/2011 08:38
Collect Date: 07/26/2011 14:46	Dilution: 1	File ID: B1.372962-0186
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	90.7		1.00	1.00



Report Number: L11080332

Report Date : September 1, 2011

Sample Number: L11080332-87	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-17D-07262011	Prep Method: D2216-90	Prep Date: 08/12/2011 08:38
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG372962	Analyst: JDH	Run Date: 08/12/2011 08:38
Collect Date: 07/26/2011 14:52	Dilution: 1	File ID: B1.372962-0187
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	91.8		1.00	1.00



Example Percent Solids Calculations

1.0 Calculating the percent solids of a sample.

$$\%Solids = \frac{WT3 - WT1}{WT2 - WT1} \times F$$

Where:

WT1 = Weight, in grams, of the empty container 1.30 g

WT2 = Weight, in grams, of the container and wet sample 21.274 g

WT3 = Weight, in grams, of the container and dried sample 5.21 g

F = Factor to get units as percent weight 100

%Solids = Percent solids present in sample. 19.58%

2.0 Calculating the percent moisture of a sample.

$$\% \text{ Moisture} = 100 - \% \text{ Solids from 1.0 calculation}$$

PERCENT SOLIDS

Workgroup (AAB#): WG372962
 Method: D2216-90
 SOP: K0003 Rev: 11

Analyst: JDH
 Instrument: BAL001

ADT(on): 08/11/2011 15:19
 ADT(off): 08/12/2011 08:38

SAMPLE NUMBER	EMPTY PAN WT 1	WET WT 2	DRY WT 3A	DRY WT 3B	DRY WT 3C	PERCENT SOLID	PERCENT MOISTURE
L11080332-01	1.31	18.63	16.95			90.30	
L11080332-02	1.31	19.15	17.58			91.20	
L11080332-03	1.33	26.44	23.7			89.09	
L11080332-04	1.33	26.44	23.7			89.09	
L11080332-05	1.33	26.44	23.7			89.09	
L11080332-06	1.33	10.37	9.78			93.47	
L11080332-07	1.32	17.53	16.7			94.88	
L11080332-08	1.33	19.89	17.75			88.47	
L11080332-09	1.33	32.17	27.24			84.01	
L11080332-10	1.33	22.64	19.59			85.69	
L11080332-11	1.33	14.42	10.52			70.21	
L11080332-12	1.33	9.45	5.92			56.53	
L11080332-13	1.31	18.67	15.54			81.97	
L11080332-14	1.33	24.19	22.22			91.38	
L11080332-15	1.34	23.63	22.53			95.07	
L11080332-16	1.34	23.23	20.3			86.61	
L11080332-17	1.33	28.32	24.9			87.33	
L11080332-18	1.34	31.06	27.09			86.64	
L11080332-19	1.32	24.3	20.8			84.77	
L11080332-20	1.32	24.3	20.8			84.77	
L11080332-21	1.32	24.3	20.8			84.77	
L11080332-22	1.33	21.67	18.67			85.25	
L11080332-23	1.34	25.09	21.65			85.52	
L11080332-24	1.34	16.94	16.02			94.10	
L11080332-25	1.34	20.49	13.93			65.74	
L11080332-26	1.32	31.36	30.98			98.74	
L11080332-27	1.33	21.58	19.34			88.94	
L11080332-28	1.33	31.9	27.61			85.97	
L11080332-29	1.32	28.86	23.19			79.41	
L11080332-30	1.32	30.68	24.78			79.90	
L11080332-31	1.32	30.68	24.78			79.90	
L11080332-32	1.32	30.68	24.78			79.90	
L11080332-33	1.33	12.67	10.83			83.77	
L11080332-34	1.33	17.12	16.4			95.44	
L11080332-35	1.31	14.21	13.55			94.88	
L11080332-36	1.33	12.74	12.15			94.83	
L11080332-37	1.32	15.69	14.19			89.56	
L11080332-38	1.31	26.35	24.36			92.05	
L11080332-39	1.31	35.27	31.99			90.34	
L11080332-40	1.34	29.65	26.89			90.25	
L11080332-41	1.33	10.78	8.53			76.19	
L11080332-42	1.32	16.18	15.1			92.73	

PERCENT SOLIDS - Modified 04/24/2008
 PDF ID: 2113792
 Report generated: 08/12/2011 08:49



PERCENT SOLIDS

Workgroup (AAB#): WG372962
 Method: D2216-90
 SOP: K0003 Rev: 11

Analyst: JDH
 Instrument: BAL001

ADT(on): 08/11/2011 15:19
 ADT(off): 08/12/2011 08:38

SAMPLE NUMBER	EMPTY PAN WT 1	WET WT 2	DRY WT 3A	DRY WT 3B	DRY WT 3C	PERCENT SOLID	PERCENT MOISTURE
L11080332-43	1.33	14.48	14.1			97.11	
L11080332-44	1.32	13.71	13.22			96.05	
L11080332-45	1.31	19.6	18.54			94.20	
L11080332-46	1.33	19.39	17.62			90.20	
L11080332-47	1.33	29.84	27.38			91.37	
L11080332-48	1.34	34.41	31.4			90.90	
L11080332-49	1.34	28.02	24.96			88.53	
L11080332-50	1.31	27.92	25.54			91.06	
L11080332-51	1.34	24.55	23.03			93.45	
L11080332-52	1.33	37.17	33.28			89.15	
L11080332-53	1.34	22.52	20.89			92.30	
L11080332-54	1.32	14.47	13.65			93.76	
L11080332-55	1.33	20.25	19.02			93.50	
L11080332-56	1.31	13.06	7.81			55.32	
L11080332-57	1.3	14.65	9.78			63.52	
L11080332-58	1.31	33.27	26.8			79.76	
L11080332-59	1.31	33.27	26.8			79.76	
L11080332-60	1.31	33.27	26.8			79.76	
L11080332-61	1.29	26.9	21.2			77.74	
L11080332-62	1.3	31.73	31.11			97.96	
L11080332-63	1.31	28.97	27.63			95.16	
L11080332-64	1.3	19.55	17.58			89.21	
L11080332-65	1.3	28.8	26.22			90.62	
L11080332-66	1.3	28.8	26.22			90.62	
L11080332-67	1.3	28.8	26.22			90.62	
L11080332-68	1.3	20.66	18.34			88.02	
L11080332-69	1.32	18	15.01			82.07	
L11080332-70	1.3	13.24	11.08			81.91	
L11080332-71	1.33	40.75	38.82			95.10	
L11080332-72	1.32	24.92	23.55			94.19	
L11080332-73	1.33	25.04	22.07			87.47	
L11080332-74	1.33	24.12	21.13			86.88	
L11080332-75	1.34	22.93	20.51			88.79	
L11080332-76	1.34	30.64	27.27			88.50	
L11080332-77	1.33	26.3	22.83			86.10	
L11080332-78	1.33	23.72	22.49			94.51	
L11080332-79	1.33	36.17	31			85.16	
L11080332-80	1.32	18.99	16.43			85.51	
L11080332-81	1.33	27.5	26.95			97.90	
L11080332-82	1.32	36.37	32.1			87.82	
L11080332-83	1.33	14.79	14.09			94.80	
L11080332-84	1.33	14.93	13.6			90.22	

PERCENT SOLIDS - Modified 04/24/2008
 PDF ID: 2113792
 Report generated: 08/12/2011 08:49



PERCENT SOLIDS

Workgroup (AAB#): WG372962
 Method: D2216-90
 SOP: K0003 Rev: 11

Analyst: JDH
 Instrument: BAL001

ADT(on): 08/11/2011 15:19
 ADT(off): 08/12/2011 08:38

SAMPLE NUMBER	EMPTY PAN WT 1	WET WT 2	DRY WT 3A	DRY WT 3B	DRY WT 3C	PERCENT SOLID	PERCENT MOISTURE
L11080332-85	1.33	12.21	11.22			90.90	
L11080332-86	1.34	16.45	15.04			90.67	
L11080332-87	1.34	23.95	22.09			91.77	
WG372962-01	1.33	21.67	18.67			85.25	14.75
WG372962-02	1.34	29.65	26.89			90.25	9.749
WG372962-03	1.29	26.9	21.2			77.74	22.26
WG372962-04	1.34	23.95	22.09			91.77	8.226
WG372962-05	1.34	23.74	21.1			88.21	11.79
WG372962-06	1.33	26.85	24.45			90.60	9.404
WG372962-07	1.33	34.38	26.38			75.79	24.21
WG372962-08	1.36	24.23	22.75			93.53	6.471

Analyst: _____

Justin Harrison

3.0 Attachments

Microbac Laboratories Inc.
Analyst Listing
September 1, 2011

ADC - ANTHONY D. CANTER	AJF - AMANDA J. FICKIESEN	ALB - ANNIE L. BROWN
ALV - AMY L. VALENTINE	AML - TONY M. LONG	AZH - AFTER HOURS
BLG - BRENDA L. GREENWALT	BRG - BRENDA R. GREGORY	CAA - CASSIE A. AUGENSTEIN
CAF - CHERYL A. FLOWERS	CEB - CHAD E. BARNES	CLC - CHRYS L. CRAWFORD
CLW - CHARISSA L. WINTERS	CPD - CHAD P. DAVIS	CS - CODY M. STRAHLER
CSH - CHRIS S. HILL	DDE - DEBRA D. ELLIOTT	DEV - DAVID E. VANDENBERG
DGB - DOUGLAS G. BUTCHER	DHG - DEBORAH H. GRIFFITHS	DIH - DEANNA I. HESSON
DLB - DAVID L. BUMGARNER	DLP - DOROTHY L. PAYNE	DLR - DIANNA L. RAUCH
DSM - DAVID S. MOSSOR	ECL - ERIC C. LAWSON	EDL - ERIN D. LONG
ERP - ERIN R. PORTER	FJB - FRANCES J. BOLDEN	HAV - HEMA VILASAGAR
HJR - HOLLY J. REED	JAL - JOHN A. LENT	JBK - JEREMY B. KINNEY
JDH - JUSTIN D. HESSON	JKT - JANE K. THOMPSON	JLL - JOHN L. LENT
JWR - JOHN W. RICHARDS	JWS - JACK W. SHEAVES	JYH - JI Y. HU
KEB - KATIE E. BARNES	KHR - KIM H. RHODES	KRA - KATHY R. ALBERTSON
LKN - LINDA K. NEDEFF	LSB - LESLIE S. BUCINA	MDA - MIKE D. ALBERTSON
MDC - MIKE D. COCHRAN	MES - MARY E. SCHILLING	MMB - MAREN M. BEERY
MRT - MICHELLE R. TAYLOR	MSW - MATT S. WILSON	PDM - PIERCE D. MORRIS
PWD - PAUL W. DENT	RAH - ROY A. HALSTEAD	REK - BOB E. KYER
RLB - BOB BUCHANAN	RLK - ROBIN L. KLINGER	RWC - RODNEY W. CAMPBELL
SJP - SUZANNE J. PAUGH	SLM - STEPHANIE L. MOSSBURG	SLP - SHERI L. PFALZGRAF
TIP - TAE I. PARRISH	TMB - TIFFANY M. BAILEY	TMM - TAMMY M. MORRIS
VC - VICKI COLLIER	WJB - WILL J. BEASLEY	WTD - WADE T. DELONG

September 01, 2011

Qualkey: WATERLOO

Qualifier	Description
*	Surrogate or spike compound out of range
+	Correlation coefficient for the MSA is less than 0.995
<	Result is less than the associated numerical value.
>	Result is greater than the associated numerical value.
A	See the report narrative
B	Analyte present in method blank
B1	Target analyte detected in method blank at or above the method reporting limit
B3	Target analyte detected in calibration blank at or above the method reporting limit
B4	The BOD unseeded dilution water blank exceeded 0.2 mg/L
C	Confirmed by GC/MS
CG	Confluent growth
DL	Surrogate or spike compound was diluted out
E	Estimated concentration due to interference.
E	Semiquantitative result (out of calibration range)
EDL	Elevated sample reporting limits, presence of non-target analytes
EMPC	Estimated Maximum Possible Concentration
F, S	Estimated result below quantitation limit; method of standard additions(MSA)
FL	Free Liquid
H1	Sample analysis performed past holding time.
I	Semiquantitative result (out of instrument calibration range)
J	Estimated concentration.
J	The analyte was positively identified, but the quantitation was below the RL.
J,B	Analyte detected in both the method blank and sample above the MDL.
J,P	Estimate; columns don't agree to within 40%
J,S	Estimated concentration; analyzed by method of standard addition (MSA)
L	Sample reporting limits elevated due to matrix interference
L1	The associated blank spike (LCS) recovery was above the laboratory acceptance limits.
L2	The associated blank spike (LCS) recovery was below the laboratory acceptance limits.
M	Matrix effect; the concentration is an estimate due to matrix effect.
N	Tentatively identified compound(TIC)
NA	Not applicable
ND	Not detected at or above the reporting limit (RL).
ND, L	Not detected; sample reporting limit (RL) elevated due to interference
ND, S	Not detected; analyzed by method of standard addition (MSA)
NF	Not found by library search
NFL	No free liquid
NI	Non-ignitable
NR	Analyte is not required to be analyzed
NS	Not spiked
P	Concentrations >40% difference between the two GC columns
Q	One or more quality control criteria failed. See narrative.
QNS	Quantity of sample not sufficient to perform analysis
RA	Reanalysis confirms reported results
RE	Reanalysis confirms sample matrix interference
S	Analyzed by method of standard addition (MSA)
SMI	Sample matrix interference on surrogate
SP	Reported results are for spike compounds only
TIC	Library Search Compound
TNTC	Too numerous to count
U	Not detected at or above adjusted sample detection limit.
UJ	Undetected; the MDL and RL are estimated due to quality control discrepancies.
UJ	Undetected; the analyte was analyzed for, but not detected.
UQ	Undetected; the analyte was analyzed for, but not detected.
W	Post-digestion spike for furnace AA out of control limits
X	Exceeds regulatory limit
X, S	Exceeds regulatory limit; method of standard additions (MSA)
Z	Cannot be resolved from isomer - see below

***Special Notes for Organic Analytes



1. Acrolein and acrylonitrile by method 624 are semi-quantitative screens only.
2. 1,2-Diphenylhydrazine is unstable and is reported as azobenzene.
3. N-nitrosodiphenylamine cannot be separated from diphenylamine.
4. 3-Methylphenol and 4-Methylphenol are unresolvable compounds.
5. m-Xylene and p-Xylene are unresolvable compounds.
6. The reporting limits for Appendix II/IX compounds by method 8270 are based on EPA estimated PQLs referenced in 40 CFR Part 264, Appendix IX. They are not always achievable for every compound and are matrix dependent.





COC No. A 23625
 158 Starlite Drive
 Marietta, OH 45750



Phone: 740-373-4071
 Fax: 740-373-4835

CHAIN-OF-CUSTODY RECORD

Company Name: Chem Hill			Contact Phone #: 1-973-820-1044		
Project Contact: Bill Moore			Location: Evans Chem, Water 100		
Turn Around Requirements: 2 WEEK			Project ID: 416903.03.03		
Sampler (print): Mike Cunningham			Signature: <i>Michael E Gump</i>		
Sample I.D. No.	Comp	Grab	Date	Time	Matrix*
DE-17E-07262011		X	07/26/2011	1455	S
DE-17F-07262011		X	07/26/2011	1457	S
DE-17G-07262011		X	07/26/2011	1459	S
DE-18A-07252011		X	07/25/2011	1600	S
DE-18B-07252011		X	07/25/2011	1603	S
DE-18C-07252011		X	07/25/2011	1610	S
DE-18D-07252011		X	07/25/2011	1612	S
DE-18E-07252011		X	07/25/2011	1618	S
DE-18F-07252011		X	07/25/2011	1625	S
DE-18G-07252011		X	07/25/2011	1630	S
DE-19A-07252011		X	07/25/2011	1655	S
DE-19B-07252011		X	07/25/2011	1657	S
DE-19C-07252011		X	07/25/2011	1658	S
DE-19D-07252011		X	07/25/2011	1700	S
DE-19E-07252011		X	07/25/2011	1706	S
DE-19F-07252011		X	07/25/2011	1709	S
DE-19G-07252011		X	07/25/2011	1712	S
DE-20A-07252011		X	07/25/2011	1730	S
DE-20G-07252011		X	07/25/2011	1745	S
NUMBER OF CONTAINERS					
Hold					
X Arsenic + Cadmium (col)					
TOTAL # (LAB USE)					
Program					
<input type="checkbox"/> CWA <input type="checkbox"/> RCRA <input type="checkbox"/> DOD <input type="checkbox"/> AFCEE <input type="checkbox"/> Other					
ADDITIONAL REQUIREMENTS					
MS/MSD					
DUPLICATE					
DUPLICATE					
MS/MSD					

221000017355

Microbac OVD
 Received: 08/09/2011 10:49
 By: BRENDA GREENWALT

Relinquished by: *Michael E Gump* 8/4/2011
 Relinquished by: *Michael E Gump*

Time (SI) 0800
 Date 8/4/2011

Time (SI)
 Date

Received by: (Signature)
 Time
 Date

Remarks:

Brenda Greenwalt

*Water (W), Soil (S), Solid Waste (SD), Unknown (X)



COC No. A 23632
158 Starlite Drive
Marietta, OH 45750



Phone: 740-373-4071
Fax: 740-373-4835

CHAIN-OF-CUSTODY RECORD

Company Name: CH2M Hill		Contact Phone #: 973-316-9300	Location: Former Hampshire Waterco, NY	Turn Around Requirements: 14-DAY	Project ID: 416903.03.03	Sampler (print): Mike Carrigan	Signature: <i>[Signature]</i>	Sample I.D. No.	Comp	Grab	Date	Time	Matrix*	NUMBER OF CONTAINERS	Hold	Remarks	Program	ADDITIONAL REQUIREMENTS	TOTAL # (LAB USE)
DE-26C-07272011	X	7/27/11	0930	S	1														
DE-26D-07272011			0940																
DE-26E-07272011			0948																
DE-26F-07272011			0950																
DE-26G-07272011			1000																
DE-25A-07262011		7/26/11	1345		3														
DE-25B-07262011			1348																
DE-25C-07262011			1351																
DE-25D-07262011			1400																
DE-25E-07262011			1415																
DE-25F-07262011			1420																
DE-25G-07262011			1425																
DE-24A-07262011			1120																
DE-24G-07262011			1125																
DE-23A-07262011			1045																
DE-23B-07262011			1048																
DE-23C-07262011			1051																
DE-23D-07262011			1101																
DE-23E-07262011			1106																
Relinquished by: <i>[Signature]</i>						Signature: <i>[Signature]</i>		Date: 8/4/2011		Time: 0800		Microbac OVD		Received: 08/09/2011 10:49		By: BRENDA GREENMALT		221000017355	
Relinquished by: <i>[Signature]</i>						Signature: <i>[Signature]</i>		Date: 8/4/2011		Time: 0800		Microbac OVD		Received: 08/09/2011 10:49		By: BRENDA GREENMALT		221000017355	
Remarks:						Signature: <i>[Signature]</i>		Date: 8/4/2011		Time: 0800		Microbac OVD		Received: 08/09/2011 10:49		By: BRENDA GREENMALT		221000017355	

*Water (W), Soil (S), Solid Waste (SD), Unknown (X)

Brenda Greenmalt

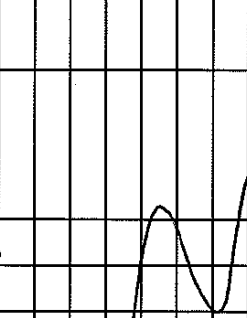


COC No. A 23292
158 Starlite Drive
Marietta, OH 45750



Phone: 740-373-4071
Fax: 740-373-4835

CHAIN-OF-CUSTODY RECORD

Company Name: CH2M Hill		Contact Phone #: 973-216-9300		Program <input type="checkbox"/> CWA <input type="checkbox"/> RCRA <input type="checkbox"/> DOD <input type="checkbox"/> AFCEE <input type="checkbox"/> Other							
Project Contact: Bill Moore		Location: Former Hampshire Waterloo, NY									
Turn Around Requirements: 14-DAY		Project ID: 416903.03.03		ADDITIONAL REQUIREMENTS							
Sampler (print): Michael Cunningham		Signature: <i>Michael Cunningham</i>									
Sample I.D. No.	Comp	Grab	Date	Time	Matrix*	NUMBER OF CONTAINERS	Hold	Remarks	Date	Time	Received by: (Signature)
DE-23E-07262011-DAP	X		7/26/11	1106	S	1		DUP			
DE-23F-07262011				1315							
DE-23G-07262011				1110							
DE-22A-07262011				1008							
DE-22G-07262011				1011							
DE-21A-07262011				0939							
DE-21B-07262011				0942							
DE-21C-07262011				0946							
DE-21D-07262011				0952							
DE-21D-07262011-DAP				0952		3		DUP			
DE-21E-07262011				0955							
DE-21G-07262011				1000		1					
											
Relinquished by: <i>Michael Cunningham</i>		Date	2/4/2011	Time	0800	Microbac OVD		Received: 08/09/2011 10:49		By: BRENDA GREENMALT	
Relinquished by: <i>Michael Cunningham</i>		Date		Time		221000017355		Remarks:			

*Water (W), Soil (S), Solid Waste (SD), Unknown (X)

Brenda Greenmalt



COC No. A 25622
158 Starlite Drive
Marietta, OH 45750



Phone: 740-373-4071
Fax: 740-373-4835

CHAIN-OF-CUSTODY RECORD

Company Name: **CH2M Hill**
 Project Contact: **Bill Moore** Contact Phone #: **1-973-820-1044**
 Turn Around Requirements: **WEEK** Location: **Evans Chem, Waterloo**
 Project ID: **416903.03.03**

Sampler (print): **Mike Cunningham** Signature: *Michael E Cunningham*

Sample I.D. No.	Comp	Grab	Date	Time	Matrix*	NUMBER OF CONTAINERS	Hold	Program	ADDITIONAL REQUIREMENTS
DE-13B-07262011	X	X	07/26/2011	1608	S	1	X	CWA	
DE-13C-07262011	X	X	07/26/2011	1614	S	1	X	RCRA	
DE-13D-07262011	X	X	07/26/2011	1620	S	1	X	DOD	
DE-13E-07262011	X	X	07/26/2011	1624	S	3	X	AFCEE	
DE-13F-07262011	X	X	07/26/2011	1630	S	1	X	Other	
DE-13G-07262011	X	X	07/26/2011	1635	S	2	X		MS, MSD
DE-14B-07262011	X	X	07/26/2011	1525	S	1	X		Duplicate
DE-14C-07262011	X	X	07/26/2011	1526	S	1	X		
DE-14D-07262011	X	X	07/26/2011	1532	S	1	X		
DE-14E-07262011	X	X	07/26/2011	1540	S	1	X		
DE-14F-07262011	X	X	07/26/2011	1545	S	2	X		Duplicate
DE-14G-07262011	X	X	07/26/2011	1553	S	1	X		
DE-15B-07262011	X	X	07/26/2011	1711	S	1	X		
DE-15G-07262011	X	X	07/26/2011	1721	S	2	X		Duplicate
DE-16B-07262011	X	X	07/26/2011	1734	S	1	X		
DE-16G-07262011	X	X	07/26/2011	1738	S	1	X		
DE-17A-07262011	X	X	07/26/2011	1435	S	1	X		
DE-17B-07262011	X	X	07/26/2011	1438	S	1	X		
DE-17C-07262011	X	X	07/26/2011	1446	S	2	X		Duplicate
DE-17D-07262011	X	X	07/26/2011	1452	S	1	X		

Relinquished by: *Michael E Cunningham* Date: **8/4/2011** Time: **0800** Received by: **221000017355**
 Relinquished by: **Signature** Date: **Date** Time: **Time** Received by: **Signature**
 Relinquished by: **Signature** Date: **Date** Time: **Time** Received by: **Signature**
 Remarks: **Aspiric + Cadmium (6012B)**

Brenda Greenwalt

*Water (W), Soil (S), Solid Waste (SD), Unknown (X)

Internal Chain of Custody Report

Login: L11080332

Account: 2736

Project: 2736.103

Samples: 87

Due Date: 23-AUG-2011

Samplenum **Container ID** **Products**
L11080332-01 867176 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:47	ERP	JKT
3	STORE	DIG	W1	15-AUG-2011 15:26	JKT	ERP
4	STORE	W1	A2	31-AUG-2011 16:57	BLG	BLG

Samplenum **Container ID** **Products**
L11080332-02 867177 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:47	ERP	JKT
3	STORE	DIG	W1	15-AUG-2011 15:26	JKT	ERP

Samplenum **Container ID** **Products**
L11080332-03 867178 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:47	ERP	JKT
3	STORE	DIG	W1	15-AUG-2011 15:26	JKT	ERP
4	STORE	W1	A2	31-AUG-2011 16:56	BLG	BLG

Samplenum **Container ID** **Products**
L11080332-04 867179 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:47	ERP	JKT
3	STORE	DIG	W1	15-AUG-2011 15:26	JKT	ERP
4	STORE	W1	A2	31-AUG-2011 16:56	BLG	BLG

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login



Microbac Laboratories Inc.
Internal Chain of Custody Report

Login: L11080332
Account: 2736
Project: 2736.103
Samples: 87
Due Date: 23-AUG-2011

Samplenum **Container ID** **Products**
L11080332-05 867180 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:47	ERP	JKT
3	STORE	DIG	W1	15-AUG-2011 15:26	JKT	ERP
4	STORE	W1	A2	31-AUG-2011 16:56	BLG	BLG

Samplenum **Container ID** **Products**
L11080332-06 867181 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:47	ERP	JKT
3	STORE	DIG	W1	15-AUG-2011 15:26	JKT	ERP
4	STORE	W1	A2	31-AUG-2011 16:56	BLG	BLG

Samplenum **Container ID** **Products**
L11080332-07 867182 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:47	ERP	JKT
3	STORE	DIG	W1	15-AUG-2011 15:26	JKT	ERP
4	STORE	W1	A2	31-AUG-2011 16:56	BLG	BLG

Samplenum **Container ID** **Products**
L11080332-08 867183 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:47	ERP	JKT
3	STORE	DIG	W1	15-AUG-2011 15:26	JKT	ERP
4	STORE	W1	A2	31-AUG-2011 16:56	BLG	BLG

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login



Microbac Laboratories Inc.
Internal Chain of Custody Report

Login: L11080332
Account: 2736
Project: 2736.103
Samples: 87
Due Date: 23-AUG-2011

Samplenum **Container ID** **Products**
L11080332-09 867184 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:47	ERP	JKT
3	STORE	DIG	W1	15-AUG-2011 15:26	JKT	ERP
4	STORE	W1	A2	31-AUG-2011 16:56	BLG	BLG

Samplenum **Container ID** **Products**
L11080332-10 867185 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:47	ERP	JKT
3	STORE	DIG	W1	15-AUG-2011 15:26	JKT	ERP
4	STORE	W1	A2	31-AUG-2011 16:56	BLG	BLG

Samplenum **Container ID** **Products**
L11080332-11 867186 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:47	ERP	JKT
3	STORE	DIG	W1	15-AUG-2011 15:26	JKT	ERP
4	STORE	W1	A2	31-AUG-2011 16:56	BLG	BLG

Samplenum **Container ID** **Products**
L11080332-12 867187 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:47	ERP	JKT
3	STORE	DIG	W1	15-AUG-2011 15:26	JKT	ERP
4	STORE	W1	A2	31-AUG-2011 16:55	BLG	BLG

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login



Microbac Laboratories Inc.
Internal Chain of Custody Report

Login: L11080332
Account: 2736
Project: 2736.103
Samples: 87
Due Date: 23-AUG-2011

Samplenum **Container ID** **Products**
L11080332-13 867188 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:47	ERP	JKT
3	STORE	DIG	W1	15-AUG-2011 15:26	JKT	ERP
4	STORE	W1	A2	31-AUG-2011 16:56	BLG	BLG

Samplenum **Container ID** **Products**
L11080332-14 867189 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:47	ERP	JKT
3	STORE	DIG	W1	15-AUG-2011 15:26	JKT	ERP
4	STORE	W1	A2	31-AUG-2011 16:56	BLG	BLG

Samplenum **Container ID** **Products**
L11080332-15 867190 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:47	ERP	JKT
3	STORE	DIG	W1	15-AUG-2011 15:26	JKT	ERP
4	STORE	W1	A2	31-AUG-2011 16:56	BLG	BLG

Samplenum **Container ID** **Products**
L11080332-16 867191 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:47	ERP	JKT
3	STORE	DIG	W1	15-AUG-2011 15:26	JKT	ERP
4	STORE	W1	A2	31-AUG-2011 16:56	BLG	BLG

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login



Microbac Laboratories Inc.
Internal Chain of Custody Report

Login: L11080332
Account: 2736
Project: 2736.103
Samples: 87
Due Date: 23-AUG-2011

Samplenum **Container ID** **Products**
L11080332-17 867192 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:46	ERP	JKT
3	STORE	DIG	W1	15-AUG-2011 15:26	JKT	ERP
4	STORE	W1	A2	31-AUG-2011 16:55	BLG	BLG

Samplenum **Container ID** **Products**
L11080332-18 867193 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:46	ERP	JKT

Samplenum **Container ID** **Products**
L11080332-19 867194 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:47	ERP	JKT
3	STORE	DIG	W1	15-AUG-2011 15:26	JKT	ERP
4	STORE	W1	A2	31-AUG-2011 16:55	BLG	BLG

Samplenum **Container ID** **Products**
L11080332-20 867195 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:47	ERP	JKT
3	STORE	DIG	W1	15-AUG-2011 15:26	JKT	ERP
4	STORE	W1	A2	31-AUG-2011 16:55	BLG	BLG

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login



Internal Chain of Custody Report

Login: L11080332

Account: 2736

Project: 2736.103

Samples: 87

Due Date: 23-AUG-2011

Samplenum **Container ID** **Products**
L11080332-21 867196 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:46	ERP	JKT
3	STORE	DIG	W1	15-AUG-2011 15:25	JKT	ERP
4	STORE	W1	A2	31-AUG-2011 16:55	BLG	BLG

Samplenum **Container ID** **Products**
L11080332-22 867197 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:46	ERP	JKT

Samplenum **Container ID** **Products**
L11080332-23 867198 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:46	ERP	JKT
3	STORE	DIG	W1	15-AUG-2011 15:26	JKT	ERP

Samplenum **Container ID** **Products**
L11080332-24 867199 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:46	ERP	JKT
3	STORE	DIG	W1	15-AUG-2011 15:26	JKT	ERP
4	STORE	W1	A2	31-AUG-2011 16:55	BLG	BLG

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login



Microbac Laboratories Inc.
Internal Chain of Custody Report

Login: L11080332
Account: 2736
Project: 2736.103
Samples: 87
Due Date: 23-AUG-2011

Samplenum **Container ID** **Products**
L11080332-25 867200 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:47	ERP	JKT
3	STORE	DIG	W1	15-AUG-2011 15:25	JKT	ERP
4	STORE	W1	A2	31-AUG-2011 16:55	BLG	BLG

Samplenum **Container ID** **Products**
L11080332-26 867201 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:47	ERP	JKT
3	STORE	DIG	W1	15-AUG-2011 15:25	JKT	ERP
4	STORE	W1	A2	31-AUG-2011 16:55	BLG	BLG

Samplenum **Container ID** **Products**
L11080332-27 867202 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:47	ERP	JKT
3	STORE	DIG	W1	15-AUG-2011 15:25	JKT	ERP
4	STORE	W1	A2	31-AUG-2011 16:55	BLG	BLG

Samplenum **Container ID** **Products**
L11080332-28 867203 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:47	ERP	JKT
3	STORE	DIG	W1	15-AUG-2011 15:25	JKT	ERP
4	STORE	W1	A2	31-AUG-2011 16:55	BLG	BLG

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login



Microbac Laboratories Inc.
Internal Chain of Custody Report

Login: L11080332
Account: 2736
Project: 2736.103
Samples: 87
Due Date: 23-AUG-2011

Samplenum **Container ID** **Products**
L11080332-29 867204 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:47	ERP	JKT
3	STORE	DIG	W1	15-AUG-2011 15:24	JKT	ERP
4	STORE	W1	A2	31-AUG-2011 16:56	BLG	BLG

Samplenum **Container ID** **Products**
L11080332-30 867205 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:47	ERP	JKT
3	STORE	DIG	W1	15-AUG-2011 15:24	JKT	ERP
4	STORE	W1	A2	31-AUG-2011 16:56	BLG	BLG

Samplenum **Container ID** **Products**
L11080332-31 867206 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:47	ERP	JKT
3	STORE	DIG	W1	15-AUG-2011 15:24	JKT	ERP
4	STORE	W1	A2	31-AUG-2011 16:56	BLG	BLG

Samplenum **Container ID** **Products**
L11080332-32 867207 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:47	ERP	JKT
3	STORE	DIG	W1	15-AUG-2011 15:24	JKT	ERP
4	STORE	W1	A2	31-AUG-2011 16:56	BLG	BLG

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login



Microbac Laboratories Inc.
Internal Chain of Custody Report

Login: L11080332
Account: 2736
Project: 2736.103
Samples: 87
Due Date: 23-AUG-2011

Samplenum **Container ID** **Products**
L11080332-33 867208 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:48	ERP	JKT
3	STORE	DIG	W1	15-AUG-2011 15:24	JKT	ERP
4	STORE	W1	A2	31-AUG-2011 16:56	BLG	BLG

Samplenum **Container ID** **Products**
L11080332-34 867209 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:48	ERP	JKT
3	STORE	DIG	W1	15-AUG-2011 15:24	JKT	ERP
4	STORE	W1	A2	31-AUG-2011 16:56	BLG	BLG

Samplenum **Container ID** **Products**
L11080332-35 867210 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:48	ERP	JKT
3	STORE	DIG	W1	15-AUG-2011 15:24	JKT	ERP
4	STORE	W1	A2	31-AUG-2011 16:55	BLG	BLG

Samplenum **Container ID** **Products**
L11080332-36 867211 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:48	ERP	JKT
3	STORE	DIG	W1	15-AUG-2011 15:24	JKT	ERP
4	STORE	W1	A2	31-AUG-2011 16:55	BLG	BLG

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login



Microbac Laboratories Inc.
Internal Chain of Custody Report

Login: L11080332
Account: 2736
Project: 2736.103
Samples: 87
Due Date: 23-AUG-2011

Samplenum **Container ID** **Products**
L11080332-37 867212 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:48	ERP	JKT
3	STORE	DIG	W1	15-AUG-2011 15:24	JKT	ERP
4	STORE	W1	A2	31-AUG-2011 16:55	BLG	BLG

Samplenum **Container ID** **Products**
L11080332-38 867213 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:48	ERP	JKT
3	STORE	DIG	W1	15-AUG-2011 15:24	JKT	ERP
4	STORE	W1	A2	31-AUG-2011 16:55	BLG	BLG

Samplenum **Container ID** **Products**
L11080332-39 867214 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:48	ERP	JKT
3	STORE	DIG	W1	15-AUG-2011 15:24	JKT	ERP
4	STORE	W1	A2	31-AUG-2011 16:55	BLG	BLG

Samplenum **Container ID** **Products**
L11080332-40 867215 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:48	ERP	JKT
3	STORE	DIG	W1	15-AUG-2011 15:24	JKT	ERP
4	STORE	W1	A2	31-AUG-2011 16:54	BLG	BLG

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login



Internal Chain of Custody Report

Login: L11080332

Account: 2736

Project: 2736.103

Samples: 87

Due Date: 23-AUG-2011

Samplenum **Container ID** **Products**
L11080332-41 867216 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:48	ERP	JKT
3	STORE	DIG	W1	15-AUG-2011 15:24	JKT	ERP
4	STORE	W1	A2	31-AUG-2011 16:55	BLG	BLG

Samplenum **Container ID** **Products**
L11080332-42 867217 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:48	ERP	JKT
3	STORE	DIG	W1	15-AUG-2011 15:25	JKT	ERP
4	STORE	W1	A2	31-AUG-2011 16:54	BLG	BLG

Samplenum **Container ID** **Products**
L11080332-43 867218 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:48	ERP	JKT
3	STORE	DIG	W1	15-AUG-2011 15:25	JKT	ERP
4	STORE	W1	A2	31-AUG-2011 16:55	BLG	BLG

Samplenum **Container ID** **Products**
L11080332-44 867219 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:48	ERP	JKT
3	STORE	DIG	W1	15-AUG-2011 15:25	JKT	ERP
4	STORE	W1	A2	31-AUG-2011 16:55	BLG	BLG

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login



Microbac Laboratories Inc.
Internal Chain of Custody Report

Login: L11080332
Account: 2736
Project: 2736.103
Samples: 87
Due Date: 23-AUG-2011

Samplenum **Container ID** **Products**
L11080332-45 867220 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:48	ERP	JKT
3	STORE	DIG	W1	15-AUG-2011 15:25	JKT	ERP
4	STORE	W1	A2	31-AUG-2011 16:54	BLG	BLG

Samplenum **Container ID** **Products**
L11080332-46 867221 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:48	ERP	JKT
3	STORE	DIG	W1	15-AUG-2011 15:25	JKT	ERP
4	STORE	W1	A2	31-AUG-2011 16:54	BLG	BLG

Samplenum **Container ID** **Products**
L11080332-47 867222 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:48	ERP	JKT
3	STORE	DIG	W1	15-AUG-2011 15:25	JKT	ERP
4	STORE	W1	A2	31-AUG-2011 16:54	BLG	BLG

Samplenum **Container ID** **Products**
L11080332-48 867223 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:48	ERP	JKT
3	STORE	DIG	W1	15-AUG-2011 15:25	JKT	ERP
4	STORE	W1	A2	31-AUG-2011 16:55	BLG	BLG

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login



Internal Chain of Custody Report

Login: L11080332

Account: 2736

Project: 2736.103

Samples: 87

Due Date: 23-AUG-2011

Samplenum **Container ID** **Products**
L11080332-49 867224 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:48	ERP	JKT
3	STORE	DIG	W1	15-AUG-2011 15:25	JKT	ERP

Samplenum **Container ID** **Products**
L11080332-50 867225 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:48	ERP	JKT
3	STORE	DIG	W1	15-AUG-2011 15:25	JKT	ERP
4	STORE	W1	A2	31-AUG-2011 16:54	BLG	BLG

Samplenum **Container ID** **Products**
L11080332-51 867226 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:48	ERP	JKT
3	STORE	DIG	W1	15-AUG-2011 15:25	JKT	ERP
4	STORE	W1	A2	31-AUG-2011 16:57	BLG	BLG

Samplenum **Container ID** **Products**
L11080332-52 867227 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:48	ERP	JKT
3	STORE	DIG	W1	15-AUG-2011 15:25	JKT	ERP
4	STORE	W1	A2	31-AUG-2011 16:54	BLG	BLG

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login



Microbac Laboratories Inc.
Internal Chain of Custody Report

Login: L11080332
Account: 2736
Project: 2736.103
Samples: 87
Due Date: 23-AUG-2011

Samplenum **Container ID** **Products**
L11080332-53 867228 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:48	ERP	JKT
3	STORE	DIG	W1	15-AUG-2011 15:25	JKT	ERP
4	STORE	W1	A2	31-AUG-2011 16:54	BLG	BLG

Samplenum **Container ID** **Products**
L11080332-54 867229 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:48	ERP	JKT
3	STORE	DIG	W1	15-AUG-2011 15:25	JKT	ERP
4	STORE	W1	A2	31-AUG-2011 16:54	BLG	BLG

Samplenum **Container ID** **Products**
L11080332-55 867230 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:48	ERP	JKT
3	STORE	DIG	W1	15-AUG-2011 15:25	JKT	ERP
4	STORE	W1	A2	31-AUG-2011 16:54	BLG	BLG

Samplenum **Container ID** **Products**
L11080332-56 867231 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:48	ERP	JKT
3	STORE	DIG	W1	15-AUG-2011 15:25	JKT	ERP
4	STORE	W1	A2	31-AUG-2011 16:54	BLG	BLG

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login



Microbac Laboratories Inc.
Internal Chain of Custody Report

Login: L11080332
Account: 2736
Project: 2736.103
Samples: 87
Due Date: 23-AUG-2011

Samplenum **Container ID** **Products**
L11080332-57 867232 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:48	ERP	JKT
3	STORE	DIG	W1	15-AUG-2011 15:23	JKT	ERP
4	STORE	W1	A2	31-AUG-2011 16:53	BLG	BLG

Samplenum **Container ID** **Products**
L11080332-58 867233 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:48	ERP	JKT
3	STORE	DIG	W1	15-AUG-2011 15:23	JKT	ERP
4	STORE	W1	A2	31-AUG-2011 16:53	BLG	BLG

Samplenum **Container ID** **Products**
L11080332-59 867234 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:49	ERP	JKT
3	STORE	DIG	W1	15-AUG-2011 15:23	JKT	ERP
4	STORE	W1	A2	31-AUG-2011 16:53	BLG	BLG

Samplenum **Container ID** **Products**
L11080332-60 867235 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:49	ERP	JKT
3	STORE	DIG	W1	15-AUG-2011 15:23	JKT	ERP
4	STORE	W1	A2	31-AUG-2011 16:53	BLG	BLG

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login



Microbac Laboratories Inc.
Internal Chain of Custody Report

Login: L11080332
Account: 2736
Project: 2736.103
Samples: 87
Due Date: 23-AUG-2011

Samplenum **Container ID** **Products**
L11080332-61 867236 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:49	ERP	JKT
3	STORE	DIG	W1	15-AUG-2011 15:23	JKT	ERP
4	STORE	W1	A2	31-AUG-2011 16:52	BLG	BLG

Samplenum **Container ID** **Products**
L11080332-62 867237 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:49	ERP	JKT
3	STORE	DIG	W1	15-AUG-2011 15:23	JKT	ERP
4	STORE	W1	A2	31-AUG-2011 16:52	BLG	BLG

Samplenum **Container ID** **Products**
L11080332-63 867238 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:49	ERP	JKT
3	STORE	DIG	W1	15-AUG-2011 15:23	JKT	ERP
4	STORE	W1	A2	31-AUG-2011 16:52	BLG	BLG

Samplenum **Container ID** **Products**
L11080332-64 867239 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:49	ERP	JKT
3	STORE	DIG	W1	15-AUG-2011 15:23	JKT	ERP
4	STORE	W1	A2	31-AUG-2011 16:52	BLG	BLG

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login



Microbac Laboratories Inc.
Internal Chain of Custody Report

Login: L11080332
Account: 2736
Project: 2736.103
Samples: 87
Due Date: 23-AUG-2011

Samplenum **Container ID** **Products**
L11080332-65 867240 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:49	ERP	JKT
3	STORE	DIG	W1	15-AUG-2011 15:23	JKT	ERP
4	STORE	W1	A2	31-AUG-2011 16:52	BLG	BLG

Samplenum **Container ID** **Products**
L11080332-66 867241 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:49	ERP	JKT
3	STORE	W1	A2	31-AUG-2011 16:54	BLG	BLG

Samplenum **Container ID** **Products**
L11080332-67 867242 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:49	ERP	JKT
3	STORE	DIG	W1	15-AUG-2011 15:24	JKT	ERP
4	STORE	W1	A2	31-AUG-2011 16:52	BLG	BLG

Samplenum **Container ID** **Products**
L11080332-68 867243 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:49	ERP	JKT
3	STORE	DIG	W1	15-AUG-2011 15:24	JKT	ERP
4	STORE	W1	A2	31-AUG-2011 16:52	BLG	BLG

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login



Internal Chain of Custody Report

Login: L11080332

Account: 2736

Project: 2736.103

Samples: 87

Due Date: 23-AUG-2011

Samplenum **Container ID** **Products**
L11080332-69 867244 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:49	ERP	JKT
3	STORE	DIG	W1	15-AUG-2011 15:24	JKT	ERP
4	STORE	W1	A2	31-AUG-2011 16:52	BLG	BLG

Samplenum **Container ID** **Products**
L11080332-70 867245 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:49	ERP	JKT
3	STORE	DIG	W1	15-AUG-2011 15:24	JKT	ERP
4	STORE	W1	A2	31-AUG-2011 16:52	BLG	BLG

Samplenum **Container ID** **Products**
L11080332-71 867246 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:49	ERP	JKT
3	STORE	DIG	W1	15-AUG-2011 15:24	JKT	ERP
4	STORE	W1	A2	31-AUG-2011 16:52	BLG	BLG

Samplenum **Container ID** **Products**
L11080332-72 867247 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:49	ERP	JKT
3	STORE	DIG	W1	15-AUG-2011 15:24	JKT	ERP
4	STORE	W1	A2	31-AUG-2011 16:52	BLG	BLG

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login



Microbac Laboratories Inc.
Internal Chain of Custody Report

Login: L11080332
Account: 2736
Project: 2736.103
Samples: 87
Due Date: 23-AUG-2011

Samplenum **Container ID** **Products**
L11080332-73 867248 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:49	ERP	JKT
3	STORE	DIG	W1	15-AUG-2011 15:24	JKT	ERP
4	STORE	W1	A2	31-AUG-2011 16:52	BLG	BLG

Samplenum **Container ID** **Products**
L11080332-74 867249 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:49	ERP	JKT
3	STORE	DIG	W1	15-AUG-2011 15:24	JKT	ERP
4	STORE	W1	A2	31-AUG-2011 16:52	BLG	BLG

Samplenum **Container ID** **Products**
L11080332-75 867250 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:49	ERP	JKT
3	STORE	DIG	W1	15-AUG-2011 15:24	JKT	ERP
4	STORE	W1	A2	31-AUG-2011 16:52	BLG	BLG

Samplenum **Container ID** **Products**
L11080332-76 867251 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:49	ERP	JKT
3	STORE	DIG	W1	15-AUG-2011 15:24	JKT	ERP
4	STORE	W1	A2	31-AUG-2011 16:52	BLG	BLG

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login



Internal Chain of Custody Report

Login: L11080332

Account: 2736

Project: 2736.103

Samples: 87

Due Date: 23-AUG-2011

Samplenum **Container ID** **Products**
L11080332-77 867252 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:49	ERP	JKT
3	STORE	DIG	W1	15-AUG-2011 15:24	JKT	ERP
4	STORE	W1	A2	31-AUG-2011 16:52	BLG	BLG

Samplenum **Container ID** **Products**
L11080332-78 867253 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:49	ERP	JKT
3	STORE	DIG	W1	15-AUG-2011 15:24	JKT	ERP
4	STORE	W1	A2	31-AUG-2011 16:52	BLG	BLG

Samplenum **Container ID** **Products**
L11080332-79 867254 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:49	ERP	JKT
3	STORE	DIG	W1	15-AUG-2011 15:24	JKT	ERP
4	STORE	W1	A2	31-AUG-2011 16:52	BLG	BLG

Samplenum **Container ID** **Products**
L11080332-80 867255 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:49	ERP	JKT

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login



Microbac Laboratories Inc.
Internal Chain of Custody Report

Login: L11080332
Account: 2736
Project: 2736.103
Samples: 87
Due Date: 23-AUG-2011

Samplenum **Container ID** **Products**
L11080332-81 867256 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:49	ERP	JKT
3	STORE	DIG	W1	15-AUG-2011 15:23	JKT	ERP
4	STORE	W1	A2	31-AUG-2011 16:53	BLG	BLG

Samplenum **Container ID** **Products**
L11080332-82 867257 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:49	ERP	JKT
3	STORE	DIG	W1	15-AUG-2011 15:23	JKT	ERP
4	STORE	W1	A2	31-AUG-2011 16:52	BLG	BLG

Samplenum **Container ID** **Products**
L11080332-83 867258 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:49	ERP	JKT

Samplenum **Container ID** **Products**
L11080332-84 867259 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:49	ERP	JKT
3	STORE	DIG	W1	15-AUG-2011 15:23	JKT	ERP
4	STORE	W1	A2	31-AUG-2011 16:52	BLG	BLG

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login



Microbac Laboratories Inc.
Internal Chain of Custody Report

Login: L11080332
Account: 2736
Project: 2736.103
Samples: 87
Due Date: 23-AUG-2011

Samplenum **Container ID** **Products**
L11080332-85 867260 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:49	ERP	JKT
3	STORE	DIG	W1	15-AUG-2011 15:23	JKT	ERP
4	STORE	W1	A2	31-AUG-2011 16:52	BLG	BLG

Samplenum **Container ID** **Products**
L11080332-86 867261 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:49	ERP	JKT
3	STORE	DIG	W1	15-AUG-2011 15:23	JKT	ERP
4	STORE	W1	A2	31-AUG-2011 16:52	BLG	BLG

Samplenum **Container ID** **Products**
L11080332-87 867262 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	10-AUG-2011 13:29	JKT	
2	ANALYZ	W1	DIG	10-AUG-2011 13:49	ERP	JKT
3	STORE	DIG	W1	15-AUG-2011 15:23	JKT	ERP
4	STORE	W1	A2	31-AUG-2011 16:52	BLG	BLG

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login



NELAP Addendum - March 4, 2011

Non-NELAP LIMS Product and Description

The following is a list of those tests that are not included in the Microbac – OVL NELAP Scope of Accreditation:

Heat of Combustion (BTU)
Total Halide by Bomb Combustion (TX)
Particle Sizing - 200 Mesh (PS200)
Sulfate (SO₄) - 9038
Specific Gravity/Density (SPGRAV)
Total Residual Chlorine (CL-TRL)
Total Volatile Solids (all forms) (TVS)
Total Coliform Bacteria (all methods)
Fecal Coliform Bacteria (all methods)
Sulfite (SO₃)
Thiodiglycol (TDG-LCMS)

NELAP Accreditation by Laboratory SOP

NONPOTABLE WATER

OVL HPLC02/HPLC-UV

Nitroglycerin
Nitroguanidine
Acetic acid
Butyric acid
Lactic acid
Propionic acid
Pyruvic acid

OVL KNITRO-C-WUV-VIS

Nitrocellulose

OVL MSS01/GC-MS

1,4-Phenylenediamine
1-Methylnaphthalene
1,4-Dioxane
Atrazine
Benzaldehyde
Biphenyl
Caprolactam
Hexamethylphosphoramide (HMPA)
Pentachlorobenzene
Pentachloroethane

NELAP Accreditation by Laboratory SOP

NONPOTABLE WATER

OVL MSV01/GC-MS

1, 1, 2-Trichloro-1,2,2-trifluoroethane
1,3-Butadiene
Cyclohexane
Cyclohexanone
Dimethyl disulfide
Dimethylsulfide
Ethyl-t-butylether (ETBE)
Isoprene
Methylacetate
Methylcyclohexane
T-amylmethylether (TAME)
Tetrahydrofuran (THF)

OVL RSK01/GC-FID

Isobutane
n-Butane
Propane
Propylene
Propyne

OVL HPLC07/HPLC-MS-MS

Hexamethylphosphoramide (XMPA-LCMS)

SOLID AND HAZARDOUS CHEMICALS

OVL HPLCOS-HPLC-UV

Nitroguanidine

OVL KNITRO-C-S/UV-VIS

Nitrocellulose

OVL MSS01/GC-MS

1-Methylnaphthalene
Benzaldehyde
Biphenyl
Caprolactam
Pentachloroethane

NELAP Accreditation by Laboratory SOP

SOLID AND HAZARDOUS CHEMICALS

OVL MSV01/GC-MS

1.3-Butadiene
Cyclohexane
Cyclohexanone
Dimethyl disulfide
Dimethylsulfide
Ethyl-t-butylether (ETBE)
Isoprene
Methylacetate
Methylcyclohexane
n-Hexane
T-amylmethylether (TAME)



Laboratory Report Number: L11100534

Shane Lowe
CH2MHILL, Inc
CH2MHILL
Richmond Heights, MO 63117

Please find enclosed the analytical results for the samples you submitted to Microbac Laboratories. Review and compilation of your report was completed by Microbac's Ohio Valley Division (OVD). If you have any questions, comments, or require further assistance regarding this report, please contact your service representative listed below.

This report was reviewed on November 01 2011

Kathy Albertson – Team Chemist/Data Specialist
(740) 373-4071
Kathy.Albertson@microbac.com

I certify that all test results meet all of the requirements of the accrediting authority listed below. All results for soil samples are reported on a 'dry-weight' basis unless specified otherwise. Analytical results for water and wastes are reported on a 'as received' basis unless specified otherwise. A statement of uncertainty for each analysis is available upon request. This laboratory report shall not be reproduced, except in full, without the written approval of Microbac Laboratories. The reported results are related only to the samples analyzed as received.

This report was certified on November 01 2011

David Vandenberg – Managing Director

State of Origin: NY
Accrediting Authority: Department of Health ID:10861
QAPP: WATERLOO



Record of Sample Receipt and Inspection

Comments/Discrepancies

This is record of the shipment conditions and the inspection records for the samples received and reported as a sample delivery group (SDG). All of the samples were inspected and observed to conform to our receipt policies, except as noted below.

There were no discrepancies.

Discrepancy	Resolution

Coolers

Cooler #	Temperature Gun	Temperature	COC #	Airbill #
0015204	G	3.0		34575090110000418682373221292159

Inspection Checklist

#	Question	Result
1	Were shipping coolers sealed?	Yes
2	Were custody seals intact?	Yes
3	Were cooler temperatures in range of 0-6?	Yes
4	Was ice present?	Yes
5	Were COC's received/information complete/signed and dated?	Yes
6	Were sample containers intact and match COC?	Yes
7	Were sample labels intact and match COC?	Yes
8	Were the correct containers and volumes received?	Yes
9	Were samples received within EPA hold times?	Yes
10	Were correct preservatives used? (water only)	NA
11	Were pH ranges acceptable? (voa's excluded)	NA
12	Were VOA samples free of headspace (less than 6mm)?	NA

Samples Received

Client ID	Laboratory ID	Date Collected	Date Received
DE-34A-10142011	L11100534-01	10/14/2011 10:00	10/15/2011 10:00
DE-34B-10142011	L11100534-02	10/14/2011 10:02	10/15/2011 10:00
DE-34C-10142011	L11100534-03	10/14/2011 10:04	10/15/2011 10:00
DE-34D-10142011	L11100534-04	10/14/2011 10:06	10/15/2011 10:00
DE-34E-10142011	L11100534-05	10/14/2011 10:08	10/15/2011 10:00
DE-34F-10142011	L11100534-06	10/14/2011 10:10	10/15/2011 10:00
DE-34G-10142011	L11100534-07	10/14/2011 10:12	10/15/2011 10:00
DUP-SOIL-10142011	L11100534-08	10/14/2011 00:01	10/15/2011 10:00

Report Number: L11100534

Report Date : November 1, 2011

Sample Number: L11100534-01
 Client ID: DE-34A-10142011
 Matrix: Soil
 Workgroup Number: WG379617
 Collect Date: 10/14/2011 10:00
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: EDL
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 10/19/2011 07:54
 Cal Date: 10/20/2011 11:10
 Run Date: 10/20/2011 12:43
 File ID: T2.102011.124325
 Percent Solid: 77.9

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	19.4		4.57	2.28
Cadmium, Total	7440-43-9	0.609		0.457	0.228

Sample Number: L11100534-01
 Client ID: DE-34A-10142011
 Matrix: Soil
 Workgroup Number: WG380549
 Collect Date: 10/14/2011 10:00
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: D2216-90
 Analytical Method: D2216-90
 Analyst: JDH
 Dilution: 1
 Units: weight %

Instrument: BAL001
 Prep Date: 10/31/2011 08:54
 Cal Date:
 Run Date: 10/31/2011 08:54
 File ID: B1.380549-0133

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	77.9		1.00	1.00

Sample Number: L11100534-02
 Client ID: DE-34B-10142011
 Matrix: Soil
 Workgroup Number: WG379617
 Collect Date: 10/14/2011 10:02
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: EDL
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 10/19/2011 07:54
 Cal Date: 10/20/2011 11:10
 Run Date: 10/20/2011 12:53
 File ID: T2.102011.125333
 Percent Solid: 79.6

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	17.0		4.72	2.36
Cadmium, Total	7440-43-9	0.668		0.472	0.236

Sample Number: L11100534-02
 Client ID: DE-34B-10142011
 Matrix: Soil
 Workgroup Number: WG380549
 Collect Date: 10/14/2011 10:02
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: D2216-90
 Analytical Method: D2216-90
 Analyst: JDH
 Dilution: 1
 Units: weight %

Instrument: BAL001
 Prep Date: 10/31/2011 08:54
 Cal Date:
 Run Date: 10/31/2011 08:54
 File ID: B1.380549-0134

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	79.6		1.00	1.00



Report Number: L11100534

Report Date : November 1, 2011

Sample Number: L11100534-03
 Client ID: DE-34C-10142011
 Matrix: Soil
 Workgroup Number: WG379617
 Collect Date: 10/14/2011 10:04
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: EDL
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 10/19/2011 07:54
 Cal Date: 10/20/2011 11:10
 Run Date: 10/20/2011 12:56
 File ID: T2.102011.125658
 Percent Solid: 85.2

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	14.2		4.28	2.14
Cadmium, Total	7440-43-9	37.0		0.428	0.214

Sample Number: L11100534-03
 Client ID: DE-34C-10142011
 Matrix: Soil
 Workgroup Number: WG380549
 Collect Date: 10/14/2011 10:04
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: D2216-90
 Analytical Method: D2216-90
 Analyst: JDH
 Dilution: 1
 Units: weight %

Instrument: BAL001
 Prep Date: 10/31/2011 08:54
 Cal Date:
 Run Date: 10/31/2011 08:54
 File ID: B1.380549-0135

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	85.2		1.00	1.00

Sample Number: L11100534-04
 Client ID: DE-34D-10142011
 Matrix: Soil
 Workgroup Number: WG379617
 Collect Date: 10/14/2011 10:06
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: EDL
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 10/19/2011 07:54
 Cal Date: 10/20/2011 11:10
 Run Date: 10/20/2011 13:00
 File ID: T2.102011.130031
 Percent Solid: 84.7

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	49.3		4.36	2.18
Cadmium, Total	7440-43-9	0.645		0.436	0.218

Sample Number: L11100534-04
 Client ID: DE-34D-10142011
 Matrix: Soil
 Workgroup Number: WG380549
 Collect Date: 10/14/2011 10:06
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: D2216-90
 Analytical Method: D2216-90
 Analyst: JDH
 Dilution: 1
 Units: weight %

Instrument: BAL001
 Prep Date: 10/31/2011 08:54
 Cal Date:
 Run Date: 10/31/2011 08:54
 File ID: B1.380549-0136

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	84.7		1.00	1.00



Report Number: L11100534

Report Date : November 1, 2011

Sample Number: L11100534-05
 Client ID: DE-34E-10142011
 Matrix: Soil
 Workgroup Number: WG379617
 Collect Date: 10/14/2011 10:08
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: EDL
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 10/19/2011 07:54
 Cal Date: 10/20/2011 11:10
 Run Date: 10/20/2011 13:03
 File ID: T2.102011.130356
 Percent Solid: 85.5

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	8.36		4.21	2.10
Cadmium, Total	7440-43-9	0.231	J	0.421	0.210

J Estimated value; the analyte concentration was less than the RL/LOQ.

Sample Number: L11100534-05
 Client ID: DE-34E-10142011
 Matrix: Soil
 Workgroup Number: WG380549
 Collect Date: 10/14/2011 10:08
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: D2216-90
 Analytical Method: D2216-90
 Analyst: JDH
 Dilution: 1
 Units: weight %

Instrument: BAL001
 Prep Date: 10/31/2011 08:54
 Cal Date:
 Run Date: 10/31/2011 08:54
 File ID: B1.380549-0137

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	85.5		1.00	1.00

Sample Number: L11100534-06
 Client ID: DE-34F-10142011
 Matrix: Soil
 Workgroup Number: WG379617
 Collect Date: 10/14/2011 10:10
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: EDL
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 10/19/2011 07:54
 Cal Date: 10/20/2011 11:10
 Run Date: 10/20/2011 13:07
 File ID: T2.102011.130723
 Percent Solid: 82.7

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	7.82		4.37	2.18
Cadmium, Total	7440-43-9	3.96		0.437	0.218

Sample Number: L11100534-06
 Client ID: DE-34F-10142011
 Matrix: Soil
 Workgroup Number: WG380549
 Collect Date: 10/14/2011 10:10
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: D2216-90
 Analytical Method: D2216-90
 Analyst: JDH
 Dilution: 1
 Units: weight %

Instrument: BAL001
 Prep Date: 10/31/2011 08:54
 Cal Date:
 Run Date: 10/31/2011 08:54
 File ID: B1.380549-0138

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	82.7		1.00	1.00



Report Number: L11100534

Report Date : November 1, 2011

Sample Number: <u>L11100534-07</u>	PrePrep Method: <u>NONE</u>	Instrument: <u>ICP-THERMO2</u>
Client ID: <u>DE-34G-10142011</u>	Prep Method: <u>3051A</u>	Prep Date: <u>10/19/2011 07:54</u>
Matrix: <u>Soil</u>	Analytical Method: <u>6010B</u>	Cal Date: <u>10/20/2011 11:10</u>
Workgroup Number: <u>WG379617</u>	Analyst: <u>EDL</u>	Run Date: <u>10/20/2011 13:10</u>
Collect Date: <u>10/14/2011 10:12</u>	Dilution: <u>1</u>	File ID: <u>T2.102011.131047</u>
Sample Tag: <u>01</u>	Units: <u>mg/kg</u>	Percent Solid: <u>79.7</u>

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	15.8		4.49	2.24
Cadmium, Total	7440-43-9	0.673		0.449	0.224

Sample Number: <u>L11100534-07</u>	PrePrep Method: <u>NONE</u>	Instrument: <u>BAL001</u>
Client ID: <u>DE-34G-10142011</u>	Prep Method: <u>D2216-90</u>	Prep Date: <u>10/31/2011 08:54</u>
Matrix: <u>Soil</u>	Analytical Method: <u>D2216-90</u>	Cal Date: _____
Workgroup Number: <u>WG380549</u>	Analyst: <u>JDH</u>	Run Date: <u>10/31/2011 08:54</u>
Collect Date: <u>10/14/2011 10:12</u>	Dilution: <u>1</u>	File ID: <u>B1.380549-0139</u>
Sample Tag: <u>01</u>	Units: <u>weight %</u>	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	79.7		1.00	1.00

Sample Number: <u>L11100534-08</u>	PrePrep Method: <u>NONE</u>	Instrument: <u>ICP-THERMO2</u>
Client ID: <u>DUP-SOIL-10142011</u>	Prep Method: <u>3051A</u>	Prep Date: <u>10/19/2011 07:54</u>
Matrix: <u>Soil</u>	Analytical Method: <u>6010B</u>	Cal Date: <u>10/20/2011 11:10</u>
Workgroup Number: <u>WG379617</u>	Analyst: <u>EDL</u>	Run Date: <u>10/20/2011 13:14</u>
Collect Date: <u>10/14/2011 00:01</u>	Dilution: <u>1</u>	File ID: <u>T2.102011.131411</u>
Sample Tag: <u>01</u>	Units: <u>mg/kg</u>	Percent Solid: <u>82.5</u>

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	9.08		4.10	2.05
Cadmium, Total	7440-43-9	2.56		0.410	0.205

Sample Number: <u>L11100534-08</u>	PrePrep Method: <u>NONE</u>	Instrument: <u>BAL001</u>
Client ID: <u>DUP-SOIL-10142011</u>	Prep Method: <u>D2216-90</u>	Prep Date: <u>10/31/2011 08:54</u>
Matrix: <u>Soil</u>	Analytical Method: <u>D2216-90</u>	Cal Date: _____
Workgroup Number: <u>WG380549</u>	Analyst: <u>JDH</u>	Run Date: <u>10/31/2011 08:54</u>
Collect Date: <u>10/14/2011 00:01</u>	Dilution: <u>1</u>	File ID: <u>B1.380549-0140</u>
Sample Tag: <u>01</u>	Units: <u>weight %</u>	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	82.5		1.00	1.00



The following report lists the analytes that were manually integrated.

Reason Code Descriptions	
Code	Description
1	Data system fails to select the correct peak
2	Data system splits the peak incorrectly or integrates a false peak as a rider peak
3	Improperly integrated isomers and/or coeluting compounds
4	System established incorrect baseline
5	Miscellaneous

Microbac REPORT L11100534
PREPARED FOR CH2MHILL, Inc
WORK ID:

2.0 Full Sample Data Package 10
 2.1 Metals Data 11
 2.1.1 Metals I C P Data 12
 2.1.1.1 Summary Data 13
 2.1.1.2 QC Summary Data 24
 2.1.1.3 Raw Data 59
 2.2 General Chemistry Data 385
 2.2.1 Percent Solids Data 386
 2.2.1.1 Raw Data 387
3.0 Attachments 400

2.0 Full Sample Data Package

2.1 Metals Data

2.1.1 Metals I C P Data

2.1.1.1 Summary Data



Login Number: L11100534
Department: Metals
Analyst: Erin Long

METHOD

Preparation: SW-846 3051

Analysis: SW-846 6010

HOLDING TIMES

Sample Preparation: All holding times were met.

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial Calibration: All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Interference Check Standards: All acceptance criteria were met.

Continuing Calibration Verification: All acceptance criteria were met.

Continuing Calibration Blank: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Serial Dilution/Post Digestion Spikes: WG379617 - All acceptance criteria were met.

Matrix Spikes: All acceptance criteria were met.

SAMPLES

Samples: All acceptance criteria were met.

Narrative ID: 36802

Approved By: Sheri Pfalzgraf

A handwritten signature in black ink that reads "Sheri L. Pfalzgraf".

LABORATORY REPORT

L11100534

11/01/11 13:40

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta, OH 45750
(740) 373-4071

For

Account Name: CH2MHILL, Inc
CH2MHILL
1034 S. Brentwood Blvd, Suite 2300
Richmond Heights, MO 63117
Attention: Shane Lowe

Project Number: 2736.103
Project: DOW WATERLOO Soil & GW
Site: WATERLOO

P.O. Number: 416903-1

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
DE-34A-10142011	L11100534-01	6010B	1	15-OCT-11
DE-34B-10142011	L11100534-02	6010B	1	15-OCT-11
DE-34C-10142011	L11100534-03	6010B	1	15-OCT-11
DE-34D-10142011	L11100534-04	6010B	1	15-OCT-11
DE-34E-10142011	L11100534-05	6010B	1	15-OCT-11
DE-34F-10142011	L11100534-06	6010B	1	15-OCT-11
DE-34G-10142011	L11100534-07	6010B	1	15-OCT-11
DUP-SOIL-10142011	L11100534-08	6010B	1	15-OCT-11



Report Number: L11100534

Report Date : November 1, 2011

Sample Number: L11100534-01
 Client ID: DE-34A-10142011
 Matrix: Soil
 Workgroup Number: WG379617
 Collect Date: 10/14/2011 10:00
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: EDL
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 10/19/2011 07:54
 Cal Date: 10/20/2011 11:10
 Run Date: 10/20/2011 12:43
 File ID: T2.102011.124325
 Percent Solid: 77.9

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	19.4		4.57	2.28
Cadmium, Total	7440-43-9	0.609		0.457	0.228



Report Number: L11100534

Report Date : November 1, 2011

Sample Number: L11100534-02
 Client ID: DE-34E-10142011
 Matrix: Soil
 Workgroup Number: WG379617
 Collect Date: 10/14/2011 10:02
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: EDL
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 10/19/2011 07:54
 Cal Date: 10/20/2011 11:10
 Run Date: 10/20/2011 12:53
 File ID: T2.102011.125333
 Percent Solid: 79.6

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	17.0		4.72	2.36
Cadmium, Total	7440-43-9	0.668		0.472	0.236



Report Number: L11100534

Report Date : November 1, 2011

Sample Number: L11100534-03
 Client ID: DE-34C-10142011
 Matrix: Soil
 Workgroup Number: WG379617
 Collect Date: 10/14/2011 10:04
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: EDL
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 10/19/2011 07:54
 Cal Date: 10/20/2011 11:10
 Run Date: 10/20/2011 12:56
 File ID: T2.102011.125658
 Percent Solid: 85.2

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	14.2		4.28	2.14
Cadmium, Total	7440-43-9	37.0		0.428	0.214



Report Number: L11100534

Report Date : November 1, 2011

Sample Number: L11100534-04
 Client ID: DE-34D-10142011
 Matrix: Soil
 Workgroup Number: WG379617
 Collect Date: 10/14/2011 10:06
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: EDL
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 10/19/2011 07:54
 Cal Date: 10/20/2011 11:10
 Run Date: 10/20/2011 13:00
 File ID: T2.102011.130031
 Percent Solid: 84.7

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	49.3		4.36	2.18
Cadmium, Total	7440-43-9	0.645		0.436	0.218



Report Number: L11100534

Report Date : November 1, 2011

Sample Number: L11100534-05
 Client ID: DE-34E-10142011
 Matrix: Soil
 Workgroup Number: WG379617
 Collect Date: 10/14/2011 10:08
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: EDL
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 10/19/2011 07:54
 Cal Date: 10/20/2011 11:10
 Run Date: 10/20/2011 13:03
 File ID: T2.102011.130356
 Percent Solid: 85.5

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	8.36		4.21	2.10
Cadmium, Total	7440-43-9	0.231	J	0.421	0.210

J Estimated value; the analyte concentration was less than the RL/LOQ.



Report Number: L11100534

Report Date : November 1, 2011

Sample Number: L11100534-06	PrePrep Method: NONE	Instrument: ICP-THERMO2
Client ID: DE-34F-10142011	Prep Method: 3051A	Prep Date: 10/19/2011 07:54
Matrix: Soil	Analytical Method: 6010B	Cal Date: 10/20/2011 11:10
Workgroup Number: WG379617	Analyst: EDL	Run Date: 10/20/2011 13:07
Collect Date: 10/14/2011 10:10	Dilution: 1	File ID: T2.102011.130723
Sample Tag: 01	Units: mg/kg	Percent Solid: 82.7

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	7.82		4.37	2.18
Cadmium, Total	7440-43-9	3.96		0.437	0.218



Report Number: L11100534

Report Date : November 1, 2011

Sample Number: L11100534-07
 Client ID: DE-34G-10142011
 Matrix: Soil
 Workgroup Number: WG379617
 Collect Date: 10/14/2011 10:12
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: EDL
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 10/19/2011 07:54
 Cal Date: 10/20/2011 11:10
 Run Date: 10/20/2011 13:10
 File ID: T2.102011.131047
 Percent Solid: 79.7

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	15.8		4.49	2.24
Cadmium, Total	7440-43-9	0.673		0.449	0.224



Report Number: L11100534

Report Date : November 1, 2011

Sample Number: L11100534-08
 Client ID: DUP-SOIL-10142011
 Matrix: Soil
 Workgroup Number: WG379617
 Collect Date: 10/14/2011 00:01
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: EDL
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 10/19/2011 07:54
 Cal Date: 10/20/2011 11:10
 Run Date: 10/20/2011 13:14
 File ID: T2.102011.131411
 Percent Solid: 82.5

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	9.08		4.10	2.05
Cadmium, Total	7440-43-9	2.56		0.410	0.205



2.1.1.2 QC Summary Data

Example 6010 Calculations
Thermo Scientific iCAP 6500

1.0 Initial Calibration (ICAL) Parameters

For a multi-point calibration, the system performs linear regression from data consisting of a blank and four standards.

2.0 Calculating the concentration (C) of an element in water using data from prep log, run log, and quantitation report (note:the data system performs this calculation automatically when correction factors have been entered):

$$Cx = Cs \times \frac{Vf}{Vi} \times D$$

Where:

Cs = Concentration computed by the data system in ug/mL (ppm)

Vf = Final volume (mL)

Vi = Initial volume (mL)

D = Dilution factor as a multiplier (10X = 10)

Cx = Concentration of element in ug/mL (mg/L)

Example:

0.1

50

50

1

0.1

3.0 Calculating the concentration (C) of an element in soil using data from prep log, run log, and quantitation report (note: the data system performs this calculation automatically when correction factors have been entered):

$$Cx = Cs \times \frac{Vf}{Vi} \times D$$

Where:

Cs = Concentration computed by the data system (mg/L) (ppm)

Vf = Final volume (mL)

Vi = Initial weight (g)

D = Dilution factor as a multiplier (10X = 10)

Cx = Concentration of element in ug/g (mg/kg)

Example:

0.1

50

1

1

5

4.0 Adjusting the concentration to dry weight:

$$Cdry = \frac{Cx \times 100}{Px}$$

Where:

Cx = Concentration calculated as received (wet basis)

Px = Percent solids of sample (%wt)

$Cdry$ = Concentration calculated as dry weight (mg/kg)

Example:

5

80

6.25

Microbac Laboratories Inc.
Microwave Digestion Log

Workgroup: WG379445
 Analyst: BRG
 Spike Analyst: BRG
 Run Date: 10/19/2011 07:54
 Method: 3051A
 Balance: BAL014
 Instrument: MW-1

SOP: ME406 Revision 12
 Spike Solution: STD47842
 Spike Witness: VC
 HNO3 Lot #: COA15720
 HCL Lot #: COA15709
 Digestion Tubes Lot #: COA15719
 1000 PPM Zr Lot #: COA15717
 10000 PPM P Lot #: COA15718

	SAMPLE #	Type	Matrix	Initial Amount	Final Volume	Initial Vessel Wt	Final Vessel Wt	Spike Amount	Due Date
1	WG379445-02	BLANK	7	1 g	50 mL	176.259 g	176.243 g		
2	WG379445-03	LCS	7	1 g	50 mL	182.346 g	182.329 g	5 mL	
3	L11100005-01	ML01	7	1 g	50 mL	177.125 g	177.113 g	.5 mL	10/31/11
4	L11100005-05	ML05	7	1 g	50 mL	177.117 g	177.095 g	.125 mL	10/31/11
5	L11100007-01	ML01	7	1 g	50 mL	178.795 g	178.752 g	1 mL	10/31/11
6	L11100007-05	ML05	7	1 g	50 mL	176.44 g	176.389 g	.25 mL	10/31/11
7	WG379445-01	REF	7	1.39 g	50 mL	179.663 g	179.198 g		
8	L11100489-34	RS02	7	1.39 g	50 mL	179.663 g	179.198 g		10/21/11
9	WG379445-04	MS	7	1.39 g	50 mL	181.883 g	181.65 g	5 mL	
10	L11100489-35	MS02	7	1.39 g	50 mL	181.883 g	181.65 g	5 mL	10/21/11
11	WG379445-05	MSD	7	1.39 g	50 mL	181.717 g	181.659 g	5 mL	
12	L11100489-36	SD02	7	1.39 g	50 mL	181.717 g	181.659 g	5 mL	10/21/11
13	L11100489-38	SAMP	7	1.436 g	50 mL	177.185 g	176.902 g		10/21/11
14	L11100489-39	SAMP	7	1.383 g	50 mL	177.73 g	177.62 g		10/21/11
15	L11100489-40	SAMP	7	1.402 g	50 mL	179.839 g	179.705 g		10/21/11
16	L11100489-41	SAMP	7	1.322 g	50 mL	176.65 g	176.598 g		10/21/11
17	L11100489-42	SAMP	7	1.474 g	50 mL	177.276 g	176.86 g		10/21/11
18	L11100489-43	SAMP	7	1.331 g	50 mL	176.737 g	176.18 g		10/21/11
19	L11100489-44	SAMP	7	1.425 g	50 mL	179.733 g	179.352 g		10/21/11
20	L11100534-01	SAMP	7	1.405 g	50 mL	176.112 g	176.081 g		10/31/11
21	L11100534-02	SAMP	7	1.329 g	50 mL	178.603 g	178.439 g		10/31/11
22	L11100534-03	SAMP	7	1.37 g	50 mL	179.263 g	178.968 g		10/31/11
23	L11100534-04	SAMP	7	1.356 g	50 mL	179.126 g	178.855 g		10/31/11
24	L11100534-05	SAMP	7	1.39 g	50 mL	175.178 g	175 g		10/31/11
25	L11100534-06	SAMP	7	1.384 g	50 mL	179.527 g	179.133 g		10/31/11
26	L11100534-07	SAMP	7	1.398 g	50 mL	178.543 g	178.152 g		10/31/11
27	L11100534-08	SAMP	7	1.478 g	50 mL	177.272 g	176.977 g		10/31/11

L11100489-39 sample reacted to the acid

Analyst: Brenda Gregory

Reviewer: Verche Collier



Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 102011T2.2
 Analyst1: EDL Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 39372

Calibration Std: STD48012 ICV Std: STD47751 Post Spike: STD47551
 ICSA: STD48048 ICSAB: STD48049 Int. Std: STD47652
 CCV: STD48110 LLCCV: _____

379617, 379511, 379665, 379368, 379512, 379513

Workgroups:

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
1	T2.102011.105638	WG379677-01	Calibration Point		1		10/20/11 10:56
2	T2.102011.110004	WG379677-02	Calibration Point		1		10/20/11 11:00
3	T2.102011.110331	WG379677-03	Calibration Point		1		10/20/11 11:03
4	T2.102011.110655	WG379677-04	Calibration Point		1		10/20/11 11:06
5	T2.102011.111007	WG379677-05	Calibration Point		1		10/20/11 11:10
6	T2.102011.111325	WG379677-06	Initial Calibration Verification		1		10/20/11 11:13
7	T2.102011.111638	WG379677-07	Initial Calib Blank		1		10/20/11 11:16
8	T2.102011.112003	WG379677-08	Interference Check		1		10/20/11 11:20
9	T2.102011.112322	WG379677-09	Interference Check		1		10/20/11 11:23
10	T2.102011.112638	WG379677-10	CCV		1		10/20/11 11:26
11	T2.102011.112948	WG379677-11	CCB		1		10/20/11 11:29
12	T2.102011.113320	WG379445-02	Method/Prep Blank	1/50	1		10/20/11 11:33
13	T2.102011.113646	WG379445-03	Laboratory Control S	1/50	1		10/20/11 11:36
14	T2.102011.113958	L11100005-01	MDL-1	1/50	1		10/20/11 11:39
15	T2.102011.114319	L11100005-05	MDL-5	1/50	1		10/20/11 11:43
16	T2.102011.114645	L11100007-01	LOQ-1	1/50	1		10/20/11 11:46
17	T2.102011.115005	L11100007-05	LOQ-5	1/50	1		10/20/11 11:50
18	T2.102011.115329	WG379445-01	Reference Sample		1	L11100489-34	10/20/11 11:53
19	T2.102011.115646	WG379445-04	Matrix Spike	1.39/50	1	L11100489-34	10/20/11 11:56
20	T2.102011.120001	WG379445-05	Matrix Spike Duplica	1.39/50	1	L11100489-34	10/20/11 12:00
21	T2.102011.120315	L11100489-38	6259-C0012	1.436/50	1		10/20/11 12:03
22	T2.102011.120651	WG379677-12	CCV		1		10/20/11 12:06
23	T2.102011.121001	WG379677-13	CCB		1		10/20/11 12:10
24	T2.102011.121331	L11100489-39	6259-C0013	1.383/50	1		10/20/11 12:13
25	T2.102011.121657	L11100489-40	6259-C0014	1.402/50	1		10/20/11 12:16
26	T2.102011.122023	L11100489-41	6259-C0015	1.322/50	1		10/20/11 12:20
27	T2.102011.122342	WG379617-01	Post Digestion Spike		1	L11100489-41	10/20/11 12:23
28	T2.102011.122657	WG379617-02	Serial Dilution		5	L11100489-41	10/20/11 12:26
29	T2.102011.123011	WG379617-02	Serial Dilution		25	L11100489-41	10/20/11 12:30
30	T2.102011.123332	L11100489-42	6259-C0016	1.474/50	1		10/20/11 12:33
31	T2.102011.123649	L11100489-43	6259-C0017	1.331/50	1		10/20/11 12:36
32	T2.102011.124008	L11100489-44	6259-C0018	1.425/50	1		10/20/11 12:40
33	T2.102011.124325	L11100534-01	DE-34A-10142011	1.405/50	1		10/20/11 12:43
34	T2.102011.124654	WG379677-14	CCV		1		10/20/11 12:46

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Sam H. Rhodes



Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 102011T2.2
 Analyst1: EDL Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 39372

Calibration Std: STD48012 ICV Std: STD47751 Post Spike: STD47551
 ICSA: STD48048 ICSAB: STD48049 Int. Std: STD47652
 CCV: STD48110 LLCCV: _____

379617, 379511, 379665, 379368, 379512, 379513

Workgroups:

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
35	T2.102011.125003	WG379677-15	CCB		1		10/20/11 12:50
36	T2.102011.125333	L11100534-02	DE-34B-10142011	1.329/50	1		10/20/11 12:53
37	T2.102011.125658	L11100534-03	DE-34C-10142011	1.37/50	1		10/20/11 12:56
38	T2.102011.130031	L11100534-04	DE-34D-10142011	1.356/50	1		10/20/11 13:00
39	T2.102011.130356	L11100534-05	DE-34E-10142011	1.39/50	1		10/20/11 13:03
40	T2.102011.130723	L11100534-06	DE-34F-10142011	1.384/50	1		10/20/11 13:07
41	T2.102011.131047	L11100534-07	DE-34G-10142011	1.398/50	1		10/20/11 13:10
42	T2.102011.131411	L11100534-08	DUP-SOIL-10142011	1.478/50	1		10/20/11 13:14
43	T2.102011.131735	L11100490-36	6259-C0056	1.426/50	2		10/20/11 13:17
44	T2.102011.132056	WG379677-16	Interference Check		1		10/20/11 13:20
45	T2.102011.132415	WG379677-17	Interference Check		1		10/20/11 13:24
46	T2.102011.132734	WG379677-18	CCV		1		10/20/11 13:27
47	T2.102011.133044	WG379677-19	CCB		1		10/20/11 13:30
48	T2.102011.133421	FE 1000 PPM	FE 1000 PPM		1		10/20/11 13:34
49	T2.102011.133748	PB 200 PPM	PB 200 PPM		1		10/20/11 13:37
50	T2.102011.134121	BLANK	BLANK		1		10/20/11 13:41
51	T2.102011.134453	WG379677-21	CCV		1		10/20/11 13:44
52	T2.102011.134803	WG379677-22	CCB		1		10/20/11 13:48
53	T2.102011.135137	WG379587-01	Method/Prep Blank	.25/50	1		10/20/11 13:51
54	T2.102011.135502	WG379587-02	Laboratory Control S	.25/50	1		10/20/11 13:55
55	T2.102011.135816	WG379587-03	Laboratory Control S	.25/50	1		10/20/11 13:58
56	T2.102011.140129	L11100495-01	SAMPLE B2	.256/50	1		10/20/11 14:01
57	T2.102011.140450	L11100495-02	SAMPLE 2 FT	.26/50	1		10/20/11 14:04
58	T2.102011.140804	L11100495-03	SAMPLE 3 FT LIQ	.25/50	1		10/20/11 14:08
59	T2.102011.141122	L11100653-01	11J0577-01	.256/50	1		10/20/11 14:11
60	T2.102011.141440	WG379665-01	Post Digestion Spike		1	L11100653-01	10/20/11 14:14
61	T2.102011.141749	WG379665-02	Serial Dilution		5	L11100653-01	10/20/11 14:17
62	T2.102011.142109	WG379665-02	Serial Dilution		25	L11100653-01	10/20/11 14:21
63	T2.102011.142439	WG379677-23	CCV		1		10/20/11 14:24
64	T2.102011.142749	WG379677-24	CCB		1		10/20/11 14:27
65	T2.102011.143123	WG378864-02	Method/Prep Blank	1/50	1		10/20/11 14:31
66	T2.102011.143450	WG378864-03	Laboratory Control S	1/50	1		10/20/11 14:34
67	T2.102011.143813	L11100343-46	12266-C0024	1.301/50	1		10/20/11 14:38
68	T2.102011.144138	L11100343-47	12266-C0025	1.401/50	1		10/20/11 14:41

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 102011T2.2
 Analyst1: EDL Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 39372

Calibration Std: STD48012 ICV Std: STD47751 Post Spike: STD47551
 ICSA: STD48048 ICSAB: STD48049 Int. Std: STD47652
 CCV: STD48110 LLCCV: _____

379617, 379511, 379665, 379368, 379512, 379513

Workgroups:

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
69	T2.102011.144455	L11100343-48	12266-C0026	1.427/50	1		10/20/11 14:44
70	T2.102011.144829	L11100344-01	12266-C0027	1.34/50	1		10/20/11 14:48
71	T2.102011.145148	L11100344-02	12266-C0028	1.373/50	1		10/20/11 14:51
72	T2.102011.145506	L11100344-03	12266-C0029	1.325/50	1		10/20/11 14:55
73	T2.102011.145823	L11100344-04	12266-C0030	1.351/50	1		10/20/11 14:58
74	T2.102011.150149	WG379368-01	Post Digestion Spike		1	L11100344-04	10/20/11 15:01
75	T2.102011.150626	WG379677-25	CCV		1		10/20/11 15:06
76	T2.102011.150938	WG379677-26	CCB		1		10/20/11 15:09
77	T2.102011.151312	WG379368-02	Serial Dilution		5	L11100344-04	10/20/11 15:13
78	T2.102011.151630	L11100344-05	12266-C0031	1.342/50	1		10/20/11 15:16
79	T2.102011.151949	L11100344-06	12266-C0032	1.34/50	1		10/20/11 15:19
80	T2.102011.152305	L11100344-07	12266-C0033	1.305/50	1		10/20/11 15:23
81	T2.102011.152623	L11100344-08	12266-C0034	1.359/50	1		10/20/11 15:26
82	T2.102011.152948	L11100344-09	12266-C0035	1.447/50	1		10/20/11 15:29
83	T2.102011.153304	L11100344-10	12266-C0036	1.391/50	1		10/20/11 15:33
84	T2.102011.153621	L11100344-11	12266-C0037	1.373/50	1		10/20/11 15:36
85	T2.102011.153939	L11100344-12	12266-C0038	1.423/50	1		10/20/11 15:39
86	T2.102011.154258	L11100344-13	12266-G0001	1.356/50	1		10/20/11 15:42
87	T2.102011.154622	WG379677-27	CCV		1		10/20/11 15:46
88	T2.102011.154932	WG379677-28	CCB		1		10/20/11 15:49
89	T2.102011.155305	L11100344-14	12266-G0002	1.371/50	1		10/20/11 15:53
90	T2.102011.155621	L11100344-15	12382-C0001	1.386/50	1		10/20/11 15:56
91	T2.102011.155941	L11100344-16	12382-C0002	1.395/50	1		10/20/11 15:59
92	T2.102011.160302	WG378864-01	Reference Sample		1	L11100344-17	10/20/11 16:03
93	T2.102011.160623	WG378864-04	Matrix Spike	1.452/50	1	L11100344-17	10/20/11 16:06
94	T2.102011.160943	WG378864-05	Matrix Spike Duplica	1.452/50	1	L11100344-17	10/20/11 16:09
95	T2.102011.161308	WG379677-29	CCV		1		10/20/11 16:13
96	T2.102011.161617	WG379677-30	CCB		1		10/20/11 16:16
97	T2.102011.161946	WG378979-02	Method/Prep Blank	1/50	1		10/20/11 16:19
98	T2.102011.162311	WG378979-03	Laboratory Control S	1/50	1		10/20/11 16:23
99	T2.102011.162634	L11100349-38	6257-C0012	1.426/50	1		10/20/11 16:26
100	T2.102011.162950	L11100349-39	6257-C0013	1.325/50	1		10/20/11 16:29
101	T2.102011.163326	L11100349-40	6257-C0014	1.418/50	1		10/20/11 16:33
102	T2.102011.163645	L11100349-41	6257-C0015	1.401/50	1		10/20/11 16:36

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Sam H. Rhodes



Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 102011T2.2
 Analyst1: EDL Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 39372

Calibration Std: STD48012 ICV Std: STD47751 Post Spike: STD47551
 ICSA: STD48048 ICSAB: STD48049 Int. Std: STD47652
 CCV: STD48110 LLCCV: _____

379617, 379511, 379665, 379368, 379512, 379513

Workgroups:

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
103	T2.102011.164020	L11100349-42	6257-C0016	1.363/50	1		10/20/11 16:40
104	T2.102011.164357	L11100349-43	6257-C0017	1.37/50	1		10/20/11 16:43
105	T2.102011.164713	WG379512-01	Post Digestion Spike		1	L11100349-43	10/20/11 16:47
106	T2.102011.165032	WG379512-02	Serial Dilution		5	L11100349-43	10/20/11 16:50
107	T2.102011.165354	WG379677-31	CCV		1		10/20/11 16:53
108	T2.102011.165704	WG379677-32	CCB		1		10/20/11 16:57
109	T2.102011.170037	WG379512-02	Serial Dilution		25	L11100349-43	10/20/11 17:00
110	T2.102011.170358	L11100349-44	6257-C0018	1.345/50	1		10/20/11 17:03
111	T2.102011.170716	L11100349-45	6257-C0019	1.326/50	1		10/20/11 17:07
112	T2.102011.171035	L11100349-46	6257-C0020	1.35/50	1		10/20/11 17:10
113	T2.102011.171354	L11100349-47	6257-C0021	1.309/50	1		10/20/11 17:13
114	T2.102011.171713	L11100349-48	6257-C0022	1.41/50	1		10/20/11 17:17
115	T2.102011.172031	L11100350-01	6257-C0023	1.329/50	1		10/20/11 17:20
116	T2.102011.172350	L11100350-02	6257-C0024	1.336/50	1		10/20/11 17:23
117	T2.102011.172708	L11100350-03	6257-C0025	1.322/50	1		10/20/11 17:27
118	T2.102011.173042	L11100350-04	6257-C0026	1.314/50	1		10/20/11 17:30
119	T2.102011.173423	WG379677-43	CCV		1		10/20/11 17:34
120	T2.102011.173733	WG379677-34	CCB		1		10/20/11 17:37
121	T2.102011.174104	L11100350-05	6257-C0027	1.378/50	1		10/20/11 17:41
122	T2.102011.174422	L11100350-06	6257-C0028	1.314/50	1		10/20/11 17:44
123	T2.102011.174740	L11100350-07	6257-C0029	1.431/50	1		10/20/11 17:47
124	T2.102011.175057	L11100350-08	6257-C0030	1.328/50	1		10/20/11 17:50
125	T2.102011.175418	WG378979-01	Reference Sample		1	L11100350-09	10/20/11 17:54
126	T2.102011.175735	WG378979-04	Matrix Spike	1.324/50	1	L11100350-09	10/20/11 17:57
127	T2.102011.180053	WG378979-05	Matrix Spike Duplica	1.324/50	1	L11100350-09	10/20/11 18:00
128	T2.102011.180415	WG379677-35	CCV		1		10/20/11 18:04
129	T2.102011.180724	WG379677-36	CCB		1		10/20/11 18:07
130	T2.102011.181054	WG378980-02	Method/Prep Blank	1/50	1		10/20/11 18:10
131	T2.102011.181420	WG378980-03	Laboratory Control S	1/50	1		10/20/11 18:14
132	T2.102011.181743	L11100350-10	6257-C0032	1.382/50	1		10/20/11 18:17
133	T2.102011.182101	L11100350-11	6257-C0033	1.329/50	1		10/20/11 18:21
134	T2.102011.182424	WG378980-01	Reference Sample		1	L11100350-12	10/20/11 18:24
135	T2.102011.182758	WG378980-04	Matrix Spike	1.302/50	1	L11100350-12	10/20/11 18:27
136	T2.102011.183126	WG378980-05	Matrix Spike Duplica	1.302/50	1	L11100350-12	10/20/11 18:31

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Sam H. Rhodes



Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 102011T2.2
 Analyst1: EDL Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 39372

Calibration Std: STD48012 ICV Std: STD47751 Post Spike: STD47551
 ICSA: STD48048 ICSAB: STD48049 Int. Std: STD47652
 CCV: STD48110 LLCCV: _____

379617, 379511, 379665, 379368, 379512, 379513

Workgroups:

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
137	T2.102011.183502	L11100350-15	6257-C0035	1.313/50	1		10/20/11 18:35
138	T2.102011.183821	L11100350-16	6257-C0036	1.422/50	1		10/20/11 18:38
139	T2.102011.184141	WG379513-01	Post Digestion Spike		1	L11100350-16	10/20/11 18:41
140	T2.102011.184458	WG379677-37	CCV		1		10/20/11 18:44
141	T2.102011.184807	WG379677-38	CCB		1		10/20/11 18:48
142	T2.102011.185136	WG379513-02	Serial Dilution		5	L11100350-16	10/20/11 18:51
143	T2.102011.185449	WG379513-02	Serial Dilution		25	L11100350-16	10/20/11 18:54
144	T2.102011.185809	L11100350-17	6257-C0037	1.345/50	1		10/20/11 18:58
145	T2.102011.190142	L11100350-18	6257-C0038	1.305/50	1		10/20/11 19:01
146	T2.102011.190508	L11100350-19	6257-C0039	1.443/50	1		10/20/11 19:05
147	T2.102011.190835	L11100350-20	6257-C0040	1.439/50	1		10/20/11 19:08
148	T2.102011.191201	L11100350-21	6257-C0041	1.428/50	1		10/20/11 19:12
149	T2.102011.191520	L11100350-22	6257-C0042	1.449/50	1		10/20/11 19:15
150	T2.102011.191838	L11100350-23	6257-C0043	1.479/50	1		10/20/11 19:18
151	T2.102011.192155	L11100350-24	6257-C0044	1.405/50	1		10/20/11 19:21
152	T2.102011.192517	WG379677-39	CCV		1		10/20/11 19:25
153	T2.102011.192827	WG379677-40	CCB		1		10/20/11 19:28
154	T2.102011.193158	L11100350-25	6257-C0045	1.301/50	1		10/20/11 19:31
155	T2.102011.193517	L11100350-26	6257-C0046	1.395/50	1		10/20/11 19:35
156	T2.102011.193836	L11100350-27	6257-C0047	1.327/50	1		10/20/11 19:38
157	T2.102011.194210	L11100350-28	6257-C0048	1.35/50	1		10/20/11 19:42
158	T2.102011.194546	L11100350-29	6257-C0049	1.341/50	1		10/20/11 19:45
159	T2.102011.194903	L11100350-30	6257-C0050	1.443/50	1		10/20/11 19:49
160	T2.102011.195239	L11100350-31	6257-C0051	1.464/50	1		10/20/11 19:52
161	T2.102011.195611	WG379677-41	CCV		1		10/20/11 19:56
162	T2.102011.195920	WG379677-42	CCB		1		10/20/11 19:59

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Sam H. Rhodes



Microbac Laboratories Inc.

Data Checklist

Date: 20-OCT-2011
 Analyst: EDL
 Analyst: NA
 Method: 6010
 Instrument: ICP-THERMO2
 Curve Workgroup: 379677
 Runlog ID: 43332
 Analytical Workgroups: 379617, 379511, 379665, 379368, 379512, 379513

Calibration/Linearity	X
ICV/CCV	X
ICB/CCB	X
ICSA/ICSAB	X
CRI	
Blank/LCS	X
MS/MSD	X
Post Spike/Serial Dilution	X
Upload Results	X
Data Qualifiers	X
Generate PDF Instrument Data	X
Sign/Annotate PDF Data	X
Upload Curve Data	X
Workgroup Forms	X
Case Narrative	489, 534, 490, 495, 653, 343, 344
Case Narrative (Continued)	349, 350
Client Forms	X
Level X	
Level 3	
Level 4	489, 534, 490, 495, 343, , 349
Level 4 (Continued)	350
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Primary Reviewer	EDL
Secondary Reviewer	KHR
Comments	

Primary Reviewer:
21-OCT-2011

Erin D. Long

Secondary Reviewer:
21-OCT-2011

Lyn H. Rhodes



Microbac Laboratories Inc.
HOLDING TIMES
 EQUIVALENT TO AFCEE FORM 9

Analytical Method:6010B
 Login Number:L11100534

AAB#:WG379617

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
DE-34A-10142011	01	10/14/11					10/19/11	4.9	180		10/20/11	6.1	180	
DE-34B-10142011	02	10/14/11					10/19/11	4.9	180		10/20/11	6.1	180	
DE-34C-10142011	03	10/14/11					10/19/11	4.9	180		10/20/11	6.1	180	
DE-34D-10142011	04	10/14/11					10/19/11	4.9	180		10/20/11	6.1	180	
DE-34E-10142011	05	10/14/11					10/19/11	4.9	180		10/20/11	6.1	180	
DE-34F-10142011	06	10/14/11					10/19/11	4.9	180		10/20/11	6.1	180	
DE-34G-10142011	07	10/14/11					10/19/11	4.9	180		10/20/11	6.1	180	
DUP-SOIL-10142011	08	10/14/11					10/19/11	5.3	180		10/20/11	6.6	180	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
 PDF File ID: 2189543
 Report generated 10/20/2011 14:12



METHOD BLANK SUMMARY

Login Number: L11100534 Work Group: WG379617
 Blank File ID: T2.102011.113320 Blank Sample ID: WG379445-02
 Prep Date: 10/19/11 07:54 Instrument ID: ICP-THERMO2
 Analyzed Date: 10/20/11 11:33 Method: 6010B
 Analyst: EDL

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG379445-03	T2.102011.113646	10/20/11 11:36	01
DE-34A-10142011	L11100534-01	T2.102011.124325	10/20/11 12:43	01
DE-34B-10142011	L11100534-02	T2.102011.125333	10/20/11 12:53	01
DE-34C-10142011	L11100534-03	T2.102011.125658	10/20/11 12:56	01
DE-34D-10142011	L11100534-04	T2.102011.130031	10/20/11 13:00	01
DE-34E-10142011	L11100534-05	T2.102011.130356	10/20/11 13:03	01
DE-34F-10142011	L11100534-06	T2.102011.130723	10/20/11 13:07	01
DE-34G-10142011	L11100534-07	T2.102011.131047	10/20/11 13:10	01
DUP-SOIL-10142011	L11100534-08	T2.102011.131411	10/20/11 13:14	01

Report Name: BLANK_SUMMARY
 PDF File ID: 2189544
 Report generated 10/20/2011 14:12



Microbac Laboratories Inc.
METHOD BLANK REPORT

Login Number: L11100534 Prep Date: 10/19/11 07:54 Sample ID: WG379445-02
Instrument ID: ICP-THERMO2 Run Date: 10/20/11 11:33 Prep Method: 3051A
File ID: T2.102011.113320 Analyst: EDL Method: 6010B
Workgroup (AAB#): WG379617 Matrix: Soil Units: mg/kg
Contract #: _____ Cal ID: ICP-TH-20-OCT-11

Analytes	MDL	RL	Concentration	Dilution	Qualifier
Arsenic, Total	2.50	5.00	2.50	1	U
Cadmium, Total	0.250	0.500	0.250	1	U

MDL Method Detection Limit
RL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name: BLANK
PDF ID: 2189545
20-OCT-2011 14:12



Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L11100534 Run Date: 10/20/2011 Sample ID: WG379445-03
Instrument ID: ICP-THERMO2 Run Time: 11:36 Prep Method: 3051A
File ID: T2.102011.113646 Analyst: EDL Method: 6010B
Workgroup (AAB#): WG379617 Matrix: Soil Units: mg/kg
QC Key: WATERLOO Lot#: STD47842 Cal ID: ICP-TH-20-OCT-11

Analytes	Expected	Found	% Rec	LCS Limits	Q
Arsenic, Total	10.0	9.51	95.1	80 - 120	
Cadmium, Total	1.25	1.22	97.6	80 - 120	

LCS - Modified 03/06/2008
PDF File ID: 2189546
Report generated: 10/20/2011 14:12



MATRIX SPIKE AND MATRIX SPIKE DUP (MS/MSD)

Loginnum: L11100534 Cal ID: ICP-THERMO2 - Worknum: WG379617
 Instrument ID: ICP-THERMO2 Contract #: _____ Method: 6010B
 Parent ID: WG379445-01 File ID: T2.102011.115329 Dil: 1 Matrix: SOLID
 Sample ID: WG379445-04 MS File ID: T2.102011.115646 Dil: 1 Units: mg/kg
 Sample ID: WG379445-05 MSD File ID: T2.102011.120001 Dil: 1 Percent Solid: 89.8

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Arsenic, Total	4.58	8.01	11.4	85.5	8.01	11.2	82.6	2.12	80 - 120	20	
Cadmium, Total	0.252	1.00	1.07	81.7	1.00	1.07	81.2	0.488	80 - 120	20	

* FAILS %REC LIMIT

FAILS RPD LIMIT

NOTE: This is an internal quality control sample.

Microbac Laboratories Inc.
Serial Dilution Report

Login: L11100534 Worknum: WG379617
Instrument: ICP-THERMO2 Method: 6010B
Serial Dil: WG379617-02 File ID: T2.102011.122657 Dil: 5 Units: mg/L
Sample: L11100489-41 File ID: T2.102011.122023 Dil: 1

Analyte	Sample	Qual	Serial Dil	Qual	% Diff	Q
Arsenic	0.112	X	ND	U		
Cadmium	0.00632	F	ND	U		

U = Result is below MDL.

F = Result is greater than or equal to MDL and less than the RL.

X = Result is greater than or equal to RL and less than 50 times the MDL.

E = %D exceeds control limit of 10% and initial sample result is greater than or equal to 50 times the MDL.

SERIAL_DIL - Modified 09/22/2008

PDF File ID: 2189541

10/20/2011 14:11



Microbac Laboratories Inc.
POST SPIKE REPORT

Sample Login ID: L11100534

Worknum: WG379617

Instrument ID: ICP-THERMO2

Method: 6010B

Post Spike ID: WG379617-01

File ID: T2.102011.122342

Dil: 1

Units: mg/L

Sample ID: L11100489-41

File ID: T2.102011.122023

Dil: 1

Matrix: Soil

Analyte	Post Spike Result	C	Sample Result	C	Spike Added(SA)	% R	Control Limit %R	Q
ARSENIC	0.287		0.112		.2	93.5	75 - 125	
CADMIUM	0.0293		0.00632	F	.025	94.5	75 - 125	

N = % Recovery exceeds control limits

F = Result is between MDL and RL

U = Sample result is below MDL. A value of zero is used in the calculation

POST_SPIKE - Modified 03/06/2008
PDF File ID: 2189542
Report generated: 10/20/2011 14:11



Microbac Laboratories Inc.
Initial Calibration Summary

Login: L11100534 Workgroup (AAB#): WG379617
 Analytical Method: 6010B Instrument ID: ICP-THERMO2
 ICAL Worknum: WG379677 Initial Calibration Date: 20-OCT-2011 11:10

	WG379677-01		WG379677-02		WG379677-03		WG379677-04		WG379677-05		R	Q
	Conc	INT	Conc	INT	Conc	INT	Conc	INT	Conc	INT		
ARSENIC	0	-0.000190	NA	NA	.008	0.0000900	.4	0.0137	.8	0.0270	.999934	
CADMIUM	0	0.000180	.0005	0.000530	.001	0.000870	.05	0.0369	.1	0.0715	.999902	

INT = Instrument intensity
 R = Coefficient of correlation
 Q = Data Qualifier
 * = Out of Compliance; R < 0.995



Microbac Laboratories Inc.
INITIAL CALIBRATION BLANK (ICB)

Login Number: L11100534 Run Date: 10/20/2011 Sample ID: WG379677-07
Instrument ID: ICP-THERMO2 Run Time: 11:16 Method: 6010B
File ID: T2.102011.111638 Analyst: EDL Units: mg/L
Workgroup (AAB#): WG379617 Cal ID: ICP-THERI - 20-OCT-11
Matrix: SOIL

Analytes	MDL	RDL	Concentration	Qualifier
ARSENIC	.05	.1	.05	U
CADMIUM	.005	.01	.005	U

ICB - Modified 07/14/2009
PDF File ID: 2189552
Report generated 10/20/2011 14:12



Microbac Laboratories Inc.
CONTINUING CALIBRATION BLANK (CCB)

Login Number: L11100534 Run Date: 10/20/2011 Sample ID: WG379677-11
Instrument ID: ICP-THERMO2 Run Time: 11:29 Method: 6010B
File ID: T2.102011.112948 Analyst: EDL Units: mg/L
Workgroup (AAB#): WG379617 Cal ID: ICP-TH - 20-OCT-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 2189555
Report generated 10/20/2011 14:12



Microbac Laboratories Inc.
CONTINUING CALIBRATION BLANK (CCB)

Login Number: L11100534 Run Date: 10/20/2011 Sample ID: WG379677-13
Instrument ID: ICP-THERMO2 Run Time: 12:10 Method: 6010B
File ID: T2.102011.121001 Analyst: EDL Units: mg/L
Workgroup (AAB#): WG379617 Cal ID: ICP-TH - 20-OCT-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 2189555
Report generated 10/20/2011 14:12



Microbac Laboratories Inc.
CONTINUING CALIBRATION BLANK (CCB)

Login Number: L11100534 Run Date: 10/20/2011 Sample ID: WG379677-15
Instrument ID: ICP-THERMO2 Run Time: 12:50 Method: 6010B
File ID: T2.102011.125003 Analyst: EDL Units: mg/L
Workgroup (AAB#): WG379617 Cal ID: ICP-TH - 20-OCT-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 2189555
Report generated 10/20/2011 14:12



Microbac Laboratories Inc.
CONTINUING CALIBRATION BLANK (CCB)

Login Number: L11100534 Run Date: 10/20/2011 Sample ID: WG379677-19
Instrument ID: ICP-THERMO2 Run Time: 13:30 Method: 6010B
File ID: T2.102011.133044 Analyst: EDL Units: mg/L
Workgroup (AAB#): WG379617 Cal ID: ICP-TH - 20-OCT-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 2189555
Report generated 10/20/2011 14:12



Microbac Laboratories Inc.
 INITIAL CALIBRATION VERIFICATION (ICV)
 (Alternate Source)

Login Number: L11100534 Run Date: 10/20/2011 Sample ID: WG379677-06
 Instrument ID: ICP-THERMO2 Run Time: 11:13 Method: 6010B
 File ID: T2.102011.111325 Analyst: EDL Units: mg/L
 Workgroup (AAB#): WG379617 Cal ID: ICP-TH - 20-OCT-11
 QC Key: WATERLOO

Analyte	Expected	Found	%REC	LIMITS	Q
Arsenic	.4	0.395	98.7	90 - 110	
Cadmium	.05	0.0499	99.8	90 - 110	

* Exceeds LIMITS Limit



Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11100534 Run Date: 10/20/2011 Sample ID: WG379677-10
 Instrument ID: ICP-THERMO2 Run Time: 11:26 Method: 6010B
 File ID: T2.102011.112638 Analyst: EDL QC Key: WATERLOO
 Workgroup (AAB#): WG379617 Cal ID: ICP-TH - 20-OCT-11
 Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.396	mg/L	99.0	90 - 110	
Cadmium	0.0500	0.0495	mg/L	99.1	90 - 110	

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
 PDF File ID: 2189554
 Report generated 10/20/2011 14:12



Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11100534 Run Date: 10/20/2011 Sample ID: WG379677-12
 Instrument ID: ICP-THERMO2 Run Time: 12:06 Method: 6010B
 File ID: T2.102011.120651 Analyst: EDL QC Key: WATERLOO
 Workgroup (AAB#): WG379617 Cal ID: ICP-TH - 20-OCT-11
 Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.393	mg/L	98.3	90 - 110	
Cadmium	0.0500	0.0495	mg/L	98.9	90 - 110	

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
 PDF File ID: 2189554
 Report generated 10/20/2011 14:12



Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11100534 Run Date: 10/20/2011 Sample ID: WG379677-14
 Instrument ID: ICP-THERMO2 Run Time: 12:46 Method: 6010B
 File ID: T2.102011.124654 Analyst: EDL QC Key: WATERLOO
 Workgroup (AAB#): WG379617 Cal ID: ICP-TH - 20-OCT-11
 Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.394	mg/L	98.6	90 - 110	
Cadmium	0.0500	0.0493	mg/L	98.5	90 - 110	

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
 PDF File ID: 2189554
 Report generated 10/20/2011 14:12



Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11100534 Run Date: 10/20/2011 Sample ID: WG379677-18
 Instrument ID: ICP-THERMO2 Run Time: 13:27 Method: 6010B
 File ID: T2.102011.132734 Analyst: EDL QC Key: WATERLOO
 Workgroup (AAB#): WG379617 Cal ID: ICP-TH - 20-OCT-11
 Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.406	mg/L	101	90 - 110	
Cadmium	0.0500	0.0501	mg/L	100	90 - 110	

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
 PDF File ID: 2189554
 Report generated 10/20/2011 14:12



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11100534
Instrument ID: ICP-THERMO2
Sol. A: WG379677-08
Sol. AB: WG379677-09

File ID: T2.102011.112003
File ID: T2.102011.112322

Workgroup (AAB#): WG379617
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.00277	NS	0.250	0.241	96.4	
Cadmium	NS	0.000260	NS	0.500	0.477	95.4	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11100534
Instrument ID: ICP-THERMO2
Sol. A: WG379677-16
Sol. AB: WG379677-17

File ID: T2.102011.132056
File ID: T2.102011.132415

Workgroup (AAB#): WG379617
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.00250	NS	0.250	0.254	102	
Cadmium	NS	0.000250	NS	0.500	0.492	98.4	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
 INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Login Number: L11100534

Date: 01/25/2011

Instrument ID: ICP-THERMO2

Method: 6010B

Analyte	Wave Length	AL	AS	B	BA	BE
ALUMINUM	308.20	0	0	0	0	0
ANTIMONY	206.80	0.0000210	0	0	0	0
ARSENIC	189.00	0	0	0	0	0
BARIUM	455.40	0	0	0	0	0
BERYLLIUM	313.00	0	0	0	0	0
BORON	249.70	0	0	0	0	0
CADMIUM	228.80	0	0.00190	0	-0.000140	0
CALCIUM	422.70	0	0	0	0	0
CHROMIUM	267.70	0	0	0	0	0
COBALT	228.60	0	0	0	0	0
COPPER	224.70	0	0	0	0	0
IRON	261.20	0	0	0	0	0
LEAD	220.30	0.000335	0	0	0	0
LITHIUM	670.80	0	0	0	0	0
MAGNESIUM	279.10	0	0	0	0	0
MANGANESE	257.60	0	0	0	0	0
MOLYBDENUM	202.03	0	0	0	0	0
NICKEL	231.60	0	0	0	0	0
PHOSPHORUS	214.90	-0.000750	0	0	0	0
POTASSIUM	766.40	0	0	0	0	0
SELENIUM	196.00	-0.0000300	0	0	0	0
SILICON	212.40	0	0	0	0	0
SILVER	328.00	0	0	0	0	0
SODIUM	589.50	0	0	0	0	0
STRONTIUM	407.80	0	0	0	0	0
THALLIUM	190.80	-0.0000120	0	0	0	0
TIN	189.90	0	0	0	0	0
TITANIUM	337.30	0	0	0	0	0
VANADIUM	292.40	0	0	0	0	0
ZINC	206.20	0.0000420	0	0	0	0
ZIRCONIUM	339.20	0	0	0	0	0

CORR_FACTORS - Modified 03/05/2008
 PDF File ID: 2189549
 Report generated: 10/20/2011 14:12



Microbac Laboratories Inc.
 INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Login Number: L11100534

Date: 01/25/2011

Instrument ID: ICP-THERMO2

Method: 6010B

Analyte	Wave Length	CA	CO	CR	CU	FE
ALUMINUM	308.20	0	-0.000820	0	0	0
ANTIMONY	206.80	0	0	0.00950	0	0.0000560
ARSENIC	189.00	0	0	0.000490	0	-0.0000120
BARIIUM	455.40	0	0	0	0	0
BERYLLIUM	313.00	0	0	0	0	0
BORON	249.70	0	0.00343	0	0	-0.000619
CADMIUM	228.80	0	-0.00200	0	0	-0.00000800
CALCIUM	422.70	0	0	0	0	0
CHROMIUM	267.70	0	0	0	0	0.0000530
COBALT	228.60	0	0	0.000108	0	0
COPPER	224.70	0	0.0000770	0	0	0.000196
IRON	261.20	0	0	0	0	0
LEAD	220.30	0	-0.0000930	-0.000172	0.000809	0
LITHIUM	670.80	0	0	0	0	0
MAGNESIUM	279.10	0	0	0	0	0
MANGANESE	257.60	0	0	-0.0000920	0	0
MOLYBDENUM	202.03	0	0	0	0	0
NICKEL	231.60	0	0.000100	0	0	0.0000320
PHOSPHORUS	214.90	0	0	0	0.00200	0.00120
POTASSIUM	766.40	0	0	0	0	0
SELENIUM	196.00	0	0	0	0	0
SILICON	212.40	0	0	0	0	0
SILVER	328.00	0	0	0	0	0
SODIUM	589.50	0	0	0	0	0
STRONTIUM	407.80	0.0000570	0	0	0	0
THALLIUM	190.80	0	0.00397	0.000276	0	0
TIN	189.90	0	0	0	0	0
TITANIUM	337.30	0	0	0	0	0
VANADIUM	292.40	0	0	0	0	-0.00000200
ZINC	206.20	0	0	0	0	0
ZIRCONIUM	339.20	0	0	0	0	-0.0000300

CORR_FACTORS - Modified 03/05/2008
 PDF File ID: 2189549
 Report generated: 10/20/2011 14:12



Microbac Laboratories Inc.
 INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Login Number: L11100534

Date: 01/25/2011

Instrument ID: ICP-THERMO2

Method: 6010B

Analyte	Wave Length	LI	MG	MN	MO	NA
ALUMINUM	308.20	0	0	0	0.0153	0
ANTIMONY	206.80	0	0	0	0.000670	0
ARSENIC	189.00	0	0	0	0.00109	0
BARIUM	455.40	0	0	0	0	0
BERYLLIUM	313.00	0	0	0	0	0
BORON	249.70	0	0	0	-0.00169	0
CADMIUM	228.80	0	0	0	0.0000220	0
CALCIUM	422.70	0	0	0	0	0
CHROMIUM	267.70	0	0	0.000160	0	0
COBALT	228.60	0	0	0	-0.000983	0
COPPER	224.70	0	0	0	0.00274	0
IRON	261.20	0	0	0	0	0
LEAD	220.30	0	0	0	-0.00183	0
LITHIUM	670.80	0	0	0	0	0
MAGNESIUM	279.10	0	0	-0.00190	-0.0110	0
MANGANESE	257.60	0	0.00000900	0	0	0
MOLYBDENUM	202.03	0	0	0	0	0
NICKEL	231.60	0	0	0	0	0
PHOSPHORUS	214.90	0	0	0	0.00800	0
POTASSIUM	766.40	0	0	0	0	0
SELENIUM	196.00	0	0	0	0.000156	0
SILICON	212.40	0	0	0	0.0187	0
SILVER	328.00	0	0	0	-0.0000440	0
SODIUM	589.50	0	0	0	0	0
STRONTIUM	407.80	0	0	0	0	0
THALLIUM	190.80	0	0	0	0	0
TIN	189.90	0	0	0	0	0
TITANIUM	337.30	0	0	0	-0.000153	0
VANADIUM	292.40	0	0	0	-0.00778	0
ZINC	206.20	0	0	0	0	0
ZIRCONIUM	339.20	0	0	0	0	0

CORR_FACTORS - Modified 03/05/2008
 PDF File ID: 2189549
 Report generated: 10/20/2011 14:12



Microbac Laboratories Inc.
 INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Login Number: L11100534

Date: 01/25/2011

Instrument ID: ICP-THERMO2

Method: 6010B

Analyte	Wave Length	NI	SB	SN	SR	TI
ALUMINUM	308.20	0	0	0	0	0
ANTIMONY	206.80	0	0	-0.00840	0	-0.000990
ARSENIC	189.00	0	0	0	0	0
BARIUM	455.40	0	0	0	0	0
BERYLLIUM	313.00	0	0	0	0	0
BORON	249.70	0	0	0	0	0
CADMIUM	228.80	-0.000128	0	0	0	0
CALCIUM	422.70	0	0	0	0	0
CHROMIUM	267.70	0	0	0	0	0.0000550
COBALT	228.60	0.000175	0	0	0	0.00188
COPPER	224.70	-0.0120	0	0	0	0.000269
IRON	261.20	0	0	0	0	0
LEAD	220.30	0.000110	0	0	0	0
LITHIUM	670.80	0	0	0	0	0
MAGNESIUM	279.10	0	0	0	0	-0.00290
MANGANESE	257.60	0	0	0	0	0
MOLYBDENUM	202.03	0	0	0	0	0
NICKEL	231.60	0	0	0	0	0
PHOSPHORUS	214.90	0	0	0	0	0
POTASSIUM	766.40	0	0	0	0	0
SELENIUM	196.00	0	0	0	0	0
SILICON	212.40	0	0	0	0	0
SILVER	328.00	0	0	0	0	-0.00620
SODIUM	589.50	0	0	0	0	0
STRONTIUM	407.80	0	0	0	0	0
THALLIUM	190.80	0	0	0	0	-0.00170
TIN	189.90	0	0	0	0	-0.00220
TITANIUM	337.30	0	0	0	0	0
VANADIUM	292.40	0	0	0	0	0.000824
ZINC	206.20	0	0	0	0	0
ZIRCONIUM	339.20	0	0	0	0	0

CORR_FACTORS - Modified 03/05/2008
 PDF File ID: 2189549
 Report generated: 10/20/2011 14:12



Microbac Laboratories Inc.
 INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Login Number: L11100534

Date: 01/25/2011

Instrument ID: ICP-THERMO2

Method: 6010B

Analyte	Wave Length	v	ZN	ZR
ALUMINUM	308.20	0.00300	0	0
ANTIMONY	206.80	-0.00438	0	0
ARSENIC	189.00	0.000107	0	0
BARIUM	455.40	0	0	0
BERYLLIUM	313.00	0	0	0
BORON	249.70	0	0	0
CADMIUM	228.80	0.0000820	0	0
CALCIUM	422.70	0	0	0
CHROMIUM	267.70	0	0	0
COBALT	228.60	0.0000200	0	0
COPPER	224.70	0	0	0
IRON	261.20	0	0	0
LEAD	220.30	-0.000126	0	0
LITHIUM	670.80	0	0	0
MAGNESIUM	279.10	0	0	0
MANGANESE	257.60	0	0	0
MOLYBDENUM	202.03	-0.000110	0	0
NICKEL	231.60	0	0	0
PHOSPHORUS	214.90	-0.00500	0	0.00200
POTASSIUM	766.40	0	0	0
SELENIUM	196.00	0	0	0
SILICON	212.40	0	0	0
SILVER	328.00	-0.00617	0	0
SODIUM	589.50	0	0	0
STRONTIUM	407.80	0	0	0
THALLIUM	190.80	-0.0282	0	0
TIN	189.90	0	0	0
TITANIUM	337.30	0	0	0
VANADIUM	292.40	0	0	0
ZINC	206.20	0	0	0
ZIRCONIUM	339.20	0	0	0

CORR_FACTORS - Modified 03/05/2008
 PDF File ID: 2189549
 Report generated: 10/20/2011 14:12



Microbac Laboratories Inc.
LINEAR RANGE (QUARTERLY)

Login Number: L11100534
Instrument ID: ICP-THERMO2

Date: 09/29/2011
Method: 6010B

Analyte	Integration Time (Sec.)	Concentration (mg/L)
Aluminum	10.00	810.0
Antimony	10.00	90.0
Arsenic	10.00	90.0
Barium	10.00	91.0
Beryllium	15.00	4.5
Boron	10.00	90.0
Cadmium	10.00	16.2
Calcium	10.00	900.0
Chromium	10.00	90.0
Cobalt	10.00	90.0
Copper	10.00	180.0
Iron	5.00	900.0
Lead	10.00	180.0
Lithium	10.00	90.0
Magnesium	15.00	900.0
Manganese	15.00	180.0
Molybdenum	10.00	9.0
Nickel	10.00	90.0
Phosphorus	10.00	900.0
Potassium	10.00	315.0
Selenium	10.00	90.0
Silicon	10.00	90.0
Silver	5.00	9.0
Sodium	10.00	315.0
Strontium	10.00	4.5
Thallium	10.00	9.0
Tin	10.00	90.0
Titanium	15.00	90.0
Vanadium	10.00	90.0
Zinc	10.00	45.0
Zirconium	10.00	45.0

Comments:

All analytes passed acceptance criteria at the specified concentration.

LINEAR_RANGE - Modified 03/06/2008
PDF File ID: 2189548
Report generated: 10/20/2011 14:12



2.1.1.3 Raw Data

Sample Name: S0 Acquired: 10/20/2011 10:56:38 Type: Cal
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: IR Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-0.00133	.00071	-0.00019	.00097	.00211	-0.00134	-0.00101
Stddev	.00030	.00011	.00006	.00007	.00055	.00010	.00018
%RSD	22.329	15.098	33.926	6.8317	26.186	7.4822	17.452

#1	-0.00161	.00081	-0.00015	.00089	.00272	-0.00123	-0.00087
#2	-0.00134	.00059	-0.00027	.00101	.00164	-0.00139	-0.00095
#3	-0.00102	.00073	-0.00015	.00100	.00197	-0.00142	-0.00121

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00018	-0.00004	.00129	.00067	.00015	.00537	.00043
Stddev	.00003	.00024	.00022	.00021	.00003	.00039	.00049
%RSD	15.330	675.48	16.885	31.909	21.426	7.2201	114.20

#1	.00021	-0.00016	.00153	.00055	.00018	.00571	.00064
#2	.00015	-0.00018	.00124	.00055	.00016	.00495	.00079
#3	.00017	.00024	.00110	.00092	.00012	.00544	-0.00013

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00003	.00013	.00033	.00202	-0.00028	.00021	-0.00024
Stddev	.00007	.00008	.00047	.00085	.00016	.00018	.00009
%RSD	228.36	62.494	141.75	41.986	55.346	83.218	39.207

#1	-0.00003	.00021	.00000	.00299	-0.00040	.00013	-0.00026
#2	.00001	.00005	.00012	.00149	-0.00034	.00010	-0.00031
#3	.00010	.00014	.00088	.00156	-0.00010	.00042	-0.00013

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-0.00157	.00023	.00021	.00013	-0.00005	.00079	.00042
Stddev	.00015	.00001	.00002	.00010	.00001	.00003	.00037
%RSD	9.7102	2.7780	7.2795	73.677	23.284	3.6919	86.618

#1	-0.00139	.00023	.00022	.00010	-0.00004	.00082	.00018
#2	-0.00164	.00023	.00021	.00006	-0.00006	.00077	.00025
#3	-0.00167	.00024	.00019	.00024	-0.00006	.00077	.00084



Approved: October 21, 2011

Emin D. Jong

Sample Name: S0 Acquired: 10/20/2011 10:56:38 Type: Cal
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: IR Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00143	-0.00045	-0.00012	-0.00039	.00075	-0.00193
Stddev	.00078	.00007	.00003	.00024	.00105	.00008
%RSD	54.582	16.310	24.150	61.469	140.29	4.2240
#1	.00233	-0.00037	-0.00014	-0.00036	.00016	-0.00185
#2	.00090	-0.00049	-0.00013	-0.00017	.00012	-0.00201
#3	.00106	-0.00050	-0.00009	-0.00065	.00196	-0.00194
Int. Std.	Y_2243	Y_3774				
Units	Cts/S	Cts/S				
Avg	27004.	41131.				
Stddev	1087.	129.				
%RSD	4.0259	.31397				
#1	26503.	41177.				
#2	26259.	41230.				
#3	28252.	40985.				



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: S1 Acquired: 10/20/2011 11:00:04 Type: Cal
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: IR Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	Ba4554	Be3131	Ca4226	Cd2288	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00182	.00172	.01538	.00312	.00130	.00053	.00082
Stddev	.00024	.00014	.00007	.00012	.00003	.00002	.00003
%RSD	13.239	8.0741	.44781	3.8947	2.5452	3.5576	4.1165

#1	.00154	.00158	.01545	.00309	.00127	.00054	.00079
#2	.00193	.00186	.01531	.00302	.00129	.00055	.00082
#3	.00199	.00172	.01537	.00325	.00133	.00051	.00086

Elem	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00425	.00143	.00114	.01116	.00347	.00064	.00156
Stddev	.00021	.00002	.00004	.00017	.00026	.00004	.00002
%RSD	4.9767	1.2225	3.3284	1.5599	7.6202	6.1780	1.3170

#1	.00437	.00143	.00111	.01136	.00319	.00065	.00158
#2	.00438	.00141	.00112	.01108	.00370	.00067	.00154
#3	.00401	.00144	.00118	.01104	.00353	.00060	.00157

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Rb7800	S_1807
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00190	.02410	.00020	.00134	.00003	-.00146	.00029
Stddev	.00003	.00024	.00001	.00004	.00006	.00045	.00003
%RSD	1.4778	1.0079	6.8667	2.8243	216.43	30.840	9.0485

#1	.00188	.02428	.00019	.00139	.00003	-.00106	.00029
#2	.00188	.02420	.00021	.00133	.00008	-.00139	.00026
#3	.00193	.02382	.00018	.00131	-.00003	-.00195	.00032

Elem	S_1820	Sb2068	Si2124	Sn1899	Sr4077	Ti3372	V_2924
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00023	.00043	.00077	.00117	.02235	.00140	.01057
Stddev	.00001	.00002	.00002	.00003	.00015	.00012	.00020
%RSD	3.9466	4.1704	2.5365	2.2439	.68997	8.6268	1.8718

#1	.00023	.00045	.00076	.00115	.02247	.00126	.01035
#2	.00021	.00041	.00076	.00116	.02218	.00148	.01074
#3	.00023	.00042	.00080	.00120	.02241	.00146	.01062



Approved: October 21, 2011

Erin D. Long

Sample Name: S1 Acquired: 10/20/2011 11:00:04 Type: Cal
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: IR Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Zn2062	Zr3391
Units	Cts/S	Cts/S
Avg	.00533	.02265
Stddev	.00005	.00116
%RSD	.98418	5.1163

#1	.00530	.02172
#2	.00529	.02229
#3	.00539	.02395

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	27141.	40626.
Stddev	116.	41.
%RSD	.42827	.10013

#1	27207.	40670.
#2	27209.	40590.
#3	27007.	40618.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: S2 Acquired: 10/20/2011 11:03:31 Type: Cal
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: IR Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00462	.00253	.00009	.00271	.02879	.00775	.00385
Stddev	.00030	.00002	.00005	.00011	.00005	.00015	.00017
%RSD	6.4351	.74874	56.364	4.1979	.18427	1.9190	4.5170

#1	.00484	.00252	.00011	.00264	.02884	.00758	.00366
#2	.00474	.00255	.00012	.00284	.02880	.00780	.00400
#3	.00428	.00253	.00003	.00265	.02874	.00786	.00389

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00087	.00181	.00727	.00229	.00204	.01726	.00689
Stddev	.00004	.00003	.00009	.00003	.00006	.00038	.00020
%RSD	4.4792	1.8455	1.2074	1.2498	3.0365	2.2000	2.9206

#1	.00082	.00178	.00727	.00230	.00209	.01733	.00688
#2	.00089	.00185	.00719	.00230	.00197	.01761	.00670
#3	.00089	.00181	.00736	.00225	.00207	.01686	.00710

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00138	.00306	.00373	.04650	.00070	.00259	.00037
Stddev	.00008	.00006	.00001	.00047	.00003	.00002	.00002
%RSD	6.1148	2.0577	.26707	1.0204	4.3123	.74830	6.4070

#1	.00143	.00313	.00373	.04668	.00073	.00257	.00035
#2	.00129	.00300	.00374	.04686	.00068	.00259	.00036
#3	.00144	.00305	.00373	.04596	.00068	.00261	.00039

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-.00139	.00035	.00024	.00084	.00008	.00080	.00211
Stddev	.00005	.00002	.00001	.00002	.00005	.00004	.00002
%RSD	3.8999	6.0209	4.3029	2.3692	59.484	4.5598	.82290

#1	-.00137	.00038	.00023	.00082	.00012	.00084	.00210
#2	-.00146	.00034	.00025	.00083	.00008	.00079	.00213
#3	-.00136	.00034	.00024	.00086	.00003	.00077	.00210



Approved: October 21, 2011

Emin D. Long

Sample Name: S2 Acquired: 10/20/2011 11:03:31 Type: Cal
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: IR Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.04394	.00328	.00014	.02205	.00966	.04061
Stddev	.00035	.00011	.00001	.00018	.00010	.00023
%RSD	.80580	3.4752	3.8224	.80850	.99828	.55716

#1	.04355	.00322	.00014	.02226	.00959	.04083
#2	.04402	.00320	.00013	.02196	.00961	.04038
#3	.04425	.00341	.00014	.02193	.00977	.04062

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	26720.	40945.
Stddev	64.	333.
%RSD	.23916	.81313

#1	26783.	40791.
#2	26655.	41327.
#3	26722.	40717.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: S3 Acquired: 10/20/2011 11:06:55 Type: Cal
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: IR Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.27668	.09405	.01371	.10976	1.3629	.45154	.24158
Stddev	.00275	.00055	.00008	.00159	.0051	.00350	.00105
%RSD	.99338	.58581	.57972	1.4486	.37235	.77493	.43268

#1	.27351	.09344	.01363	.10796	1.3570	.44855	.24039
#2	.27837	.09423	.01379	.11033	1.3654	.45069	.24204
#3	.27816	.09450	.01371	.11098	1.3662	.45539	.24232

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.03690	.09070	.29643	.08314	.09881	.63550	.34371
Stddev	.00012	.00019	.00140	.00024	.00048	.00195	.00186
%RSD	.31674	.21451	.47294	.28431	.48721	.30755	.54156

#1	.03681	.09056	.29493	.08312	.09831	.63405	.34179
#2	.03685	.09061	.29667	.08291	.09883	.63772	.34550
#3	.03703	.09092	.29770	.08338	.09927	.63473	.34384

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.06826	.14568	.18350	2.3313	.04952	.12479	.03013
Stddev	.00014	.00043	.00043	.0055	.00011	.00024	.00012
%RSD	.20624	.29599	.23455	.23585	.22838	.18966	.40817

#1	.06809	.14521	.18313	2.3310	.04952	.12451	.03018
#2	.06834	.14577	.18340	2.3369	.04941	.12494	.02999
#3	.06834	.14606	.18397	2.3259	.04963	.12490	.03023

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-.00128	.00523	.00013	.03909	.00777	.00200	.09248
Stddev	.00046	.00001	.00001	.00018	.00004	.00003	.00015
%RSD	35.671	.19380	8.6931	.46866	.50765	1.5150	.16507

#1	-.00168	.00523	.00013	.03888	.00775	.00203	.09233
#2	-.00138	.00524	.00012	.03922	.00782	.00200	.09263
#3	-.00078	.00523	.00014	.03917	.00775	.00197	.09246



Approved: October 21, 2011

Erin D. Long

Sample Name: S3 Acquired: 10/20/2011 11:06:55 Type: Cal
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: IR Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2.1319	.18077	.01213	1.0882	.46819	2.4182
Stddev	.0105	.00080	.00003	.0104	.00207	.0230
%RSD	.49462	.44091	.23855	.95971	.44246	.95254
#1	2.1212	.17985	.01210	1.0763	.47014	2.3919
#2	2.1423	.18127	.01214	1.0927	.46602	2.4346
#3	2.1320	.18119	.01215	1.0957	.46840	2.4282
Int. Std.	Y_2243	Y_3774				
Units	Cts/S	Cts/S				
Avg	26613.	39922.				
Stddev	120.	281.				
%RSD	.44984	.70442				
#1	26507.	39831.				
#2	26743.	40237.				
#3	26590.	39697.				



Approved: October 21, 2011

Emin D. Long

Sample Name: S4 Acquired: 10/20/2011 11:10:07 Type: Cal
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: IR Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.54168	.18560	.02695	.21617	2.7030	.89478	.48061
Stddev	.00377	.00084	.00017	.00154	.0103	.00412	.00261
%RSD	.69601	.45057	.62931	.71333	.38157	.46028	.54309

#1	.54216	.18629	.02708	.21649	2.7146	.89708	.48353
#2	.53769	.18583	.02676	.21450	2.6997	.89003	.47983
#3	.54519	.18467	.02701	.21753	2.6947	.89724	.47849

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.07152	.17441	.57295	.15935	.19335	1.2666	.68836
Stddev	.00017	.00046	.00313	.00021	.00016	.0101	.00462
%RSD	.24217	.26651	.54568	.13358	.08163	.79776	.67141

#1	.07168	.17479	.57428	.15958	.19318	1.2739	.69157
#2	.07134	.17389	.56938	.15932	.19349	1.2709	.69044
#3	.07154	.17456	.57519	.15915	.19336	1.2551	.68306

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.13340	.28629	.35442	4.6262	.09553	.24417	.05791
Stddev	.00061	.00097	.00062	.0325	.00013	.00054	.00023
%RSD	.45922	.33761	.17404	.70219	.13529	.21983	.39536

#1	.13318	.28708	.35511	4.6424	.09546	.24453	.05817
#2	.13410	.28658	.35391	4.6474	.09545	.24355	.05773
#3	.13293	.28521	.35426	4.5888	.09568	.24442	.05784

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-.00140	.00980	.00005	.07570	.01523	.00323	.17885
Stddev	.00019	.00002	.00003	.00009	.00003	.00002	.00046
%RSD	13.324	.17385	52.967	.11879	.21148	.74655	.25717

#1	-.00155	.00978	.00002	.07576	.01523	.00321	.17894
#2	-.00146	.00979	.00005	.07560	.01521	.00321	.17836
#3	-.00119	.00982	.00007	.07575	.01527	.00325	.17926



Approved: October 21, 2011

Erin D. Long

Sample Name: S4 Acquired: 10/20/2011 11:10:07 Type: Cal
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: IR Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4.2679	.35958	.02324	2.1370	.91322	4.8264
Stddev	.0440	.00280	.00003	.0132	.00167	.0370
%RSD	1.0305	.77752	.11082	.61977	.18282	.76679
#1	4.3042	.36172	.02324	2.1449	.91457	4.8419
#2	4.2804	.36060	.02321	2.1217	.91136	4.7841
#3	4.2190	.35641	.02326	2.1444	.91374	4.8531
Int. Std.	Y_2243	Y_3774				
Units	Cts/S	Cts/S				
Avg	26312.	40873.				
Stddev	43.	238.				
%RSD	.16450	.58292				
#1	26272.	41146.				
#2	26358.	40767.				
#3	26305.	40706.				



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: ICV Acquired: 10/20/2011 11:13:25 Type: QC
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.39612	9.7426	.39475	.49614	.95639	.04946	9.7608
Stddev	.00103	.0208	.00089	.00132	.00028	.00017	.0074
%RSD	.26105	.21391	.22542	.26679	.02944	.33895	.07619

#1	.39666	9.7239	.39416	.49669	.95612	.04963	9.7522
#2	.39493	9.7651	.39577	.49711	.95668	.04930	9.7656
#3	.39677	9.7387	.39431	.49464	.95637	.04945	9.7645

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 Value
 Range

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04991	.20123	.48955	.49346	3.8993	49.202	.96034
Stddev	.00011	.00033	.00310	.00049	.0032	.101	.00088
%RSD	.21830	.16596	.63373	.09968	.08259	.20541	.09147

#1	.04979	.20135	.49178	.49294	3.9027	49.293	.96111
#2	.05000	.20086	.48601	.49392	3.8988	49.093	.95939
#3	.04993	.20149	.49087	.49351	3.8963	49.221	.96053

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 Value
 Range

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.8527	.48881	1.0056	49.231	.49724	9.8664	.49802
Stddev	.0457	.00106	.0011	.128	.00089	.0136	.00117
%RSD	.46375	.21674	.10965	.25941	.17974	.13780	.23492

#1	9.8656	.48856	1.0052	49.360	.49763	9.8557	.49688
#2	9.8020	.48791	1.0068	49.104	.49787	9.8817	.49922
#3	9.8906	.48998	1.0047	49.228	.49622	9.8618	.49797

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 Value
 Range



Approved: October 21, 2011

Emin D. Jong

Sample Name: ICV Acquired: 10/20/2011 11:13:25 Type: QC
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .13777	10.142	F 9.3365	1.1752	.39782	F 1321.8	.97970
Stddev	10.517	.054	2.2119	.0038	.00303	2.5	.00175
%RSD	7633.8	.53158	23.690	.32406	.76199	.18597	.17877

#1	-12.005	10.202	7.8378	1.1792	.39678	1322.0	.98155
#2	6.0419	10.125	11.877	1.1748	.40123	1324.2	.97807
#3	6.3763	10.098	8.2948	1.1716	.39545	1319.3	.97948

Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
Value	10.000		10.000			5.0000	
Range	-5.0000%		-5.0000%			5.0000%	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.96973	.97154	.49716	.98941	.98923	F 1.0544
Stddev	.00169	.00131	.00198	.00086	.00317	.0013
%RSD	.17395	.13454	.39802	.08739	.32014	.12196

#1	.97168	.97271	.49774	.98993	.98604	1.0552
#2	.96876	.97013	.49496	.98990	.98927	1.0550
#3	.96876	.97179	.49879	.98842	.99238	1.0529

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value						1.0000
Range						5.0000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	26758.	40123.
Stddev	71.	257.
%RSD	.26492	.63928

#1	26727.	40135.
#2	26839.	40373.
#3	26708.	39860.



Approved: October 21, 2011
Emin D. Long

Sample Name: ICB Acquired: 10/20/2011 11:16:38 Type: Blank
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00024	.00381	-.00021	-.00101	-.00018	.00000	-.00597
Stddev	.00012	.01077	.00083	.00075	.00019	.0000	.00080
%RSD	49.812	282.97	389.25	73.979	101.79	281.63	13.349

#1	.00030	-.00733	.00002	-.00040	-.00006	-.00001	-.00505
#2	.00010	.01417	.00048	-.00079	-.00039	.00000	-.00642
#3	.00031	.00458	-.00114	-.00185	-.00010	.00000	-.00645

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00010	-.00025	.00004	-.00084	.00138	-.01947	-.00191
Stddev	.00002	.00006	.00026	.00011	.00307	.03258	.00015
%RSD	22.451	22.794	682.93	12.738	223.25	167.28	7.9641

#1	-.00008	-.00025	.00009	-.00084	-.00194	-.03315	-.00206
#2	-.00011	-.00031	-.00024	-.00095	.00193	.01771	-.00190
#3	-.00012	-.00019	.00027	-.00073	.00413	-.04298	-.00176

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00281	.00001	-.00159	-.01724	-.00082	-.00797	-.00130
Stddev	.00121	.00017	.00006	.00976	.00053	.00291	.00010
%RSD	43.183	2412.5	4.0824	56.639	65.050	36.511	7.4729

#1	-.00158	.00004	-.00155	-.02799	-.00066	-.00497	-.00124
#2	-.00284	-.00018	-.00167	-.00893	-.00038	-.01079	-.00125
#3	-.00400	.00016	-.00156	-.01479	-.00141	-.00816	-.00141

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: ICB Acquired: 10/20/2011 11:16:38 Type: Blank
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 9.1381	F .04296	F -.01449	-.00299	-.00247	-.26937	-.00255
Stddev	2.8320	.01085	2.6965	.00145	.00206	.10524	.00030
%RSD	30.991	25.260	18614.	48.533	83.448	39.070	11.564

#1	11.013	.04047	3.0985	-.00371	-.00011	-.15118	-.00275
#2	5.8804	.05484	-1.5145	-.00394	-.00336	-.35295	-.00269
#3	10.520	.03357	-1.6274	-.00132	-.00394	-.30397	-.00221

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.01000	.01000	.01000				
Low Limit	-.01000	-.01000	-.01000				

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00019	-.00020	-.00042	-.00015	-.00046	.00078
Stddev	.00003	.00063	.00119	.00026	.00002	.00010
%RSD	17.720	311.17	281.67	179.87	3.4553	12.622

#1	-.00021	-.00079	.00057	.00012	-.00045	.00068
#2	-.00015	-.00029	-.00174	-.00040	-.00048	.00079
#3	-.00020	.00047	-.00009	-.00015	-.00046	.00087

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	27025.	39779.
Stddev	78.	150.
%RSD	.28775	.37745

#1	27082.	39616.
#2	27056.	39912.
#3	26936.	39810.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: ICSA Acquired: 10/20/2011 11:20:03 Type: QC
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00019	248.21	-.00277	.00560	.00031	.00001	247.66
Stddev	.00027	.31	.00103	.00032	.00008	.00002	.96
%RSD	139.75	.12450	37.142	5.6744	26.928	243.22	.38942

#1	.00035	247.86	-.00334	.00550	.00041	-.00001	246.56
#2	.00035	248.44	-.00337	.00596	.00027	.00001	248.04
#3	-.00012	248.33	-.00158	.00535	.00026	.00002	248.38

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00026	-.00010	-.00043	F .00862	94.784	-.05216	.00765
Stddev	.00005	.00009	.00020	.00022	.485	.01507	.00124
%RSD	20.281	89.781	47.050	2.5706	.51216	28.887	16.174

#1	.00025	-.00015	-.00031	.00873	94.224	-.03502	.00647
#2	.00021	.00000	-.00033	.00877	95.075	-.06332	.00894
#3	.00032	-.00017	-.00067	.00837	95.054	-.05813	.00754

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit				.00500			
Low Limit				-.00500			

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	249.93	-.00106	-.00271	-.01357	-.00023	-.10273	.00043
Stddev	.66	.00022	.00011	.00948	.00033	.00167	.00143
%RSD	.26315	20.934	4.1531	69.899	143.36	1.6296	328.79

#1	250.01	-.00088	-.00258	-.01858	.00015	-.10081	-.00021
#2	250.54	-.00100	-.00277	-.00263	-.00046	-.10387	.00207
#3	249.23	-.00131	-.00278	-.01949	-.00038	-.10352	-.00056

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: ICSA Acquired: 10/20/2011 11:20:03 Type: QC
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 4.3907	F 231.62	F 24.545	-0.0617	-0.00173	.10685	.00052
Stddev	7.5248	.42	4.706	.00074	.00074	.27593	.00022
%RSD	171.38	.18001	19.173	11.986	42.878	258.24	41.746

#1	3.4580	232.10	19.197	-0.00550	-0.00256	.06434	.00028
#2	12.338	231.41	28.053	-0.00603	-0.00114	.40157	.00057
#3	-2.6243	231.36	26.385	-0.00696	-0.00149	-.14536	.00071

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.04000	.04000	.04000				
Low Limit	-.04000	-.04000	-.04000				

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00260	-0.00420	.00090	.00109	.00080	.00047
Stddev	.00010	.00042	.00144	.00032	.00009	.00008
%RSD	4.0111	10.117	160.92	29.418	11.275	17.324

#1	.00271	-0.00416	.00148	.00135	.00089	.00039
#2	.00251	-0.00464	.00195	.00073	.00071	.00046
#3	.00258	-0.00380	-0.00075	.00120	.00079	.00055

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	25576.	38848.
Stddev	49.	270.
%RSD	.19107	.69484

#1	25599.	38740.
#2	25609.	38648.
#3	25520.	39155.



Approved: October 21, 2011
<i>Erin D. Long</i>

Sample Name: ICSAB Acquired: 10/20/2011 11:23:22 Type: QC
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49276	248.68	.24133	.00606	.23866	.24078	249.09
Stddev	.00867	.35	.00133	.00034	.00061	.00255	.20
%RSD	1.7600	.13975	.55276	5.5458	.25413	1.0591	.08111

#1	.48359	249.07	.24145	.00644	.23810	.23868	249.14
#2	.50082	248.40	.23994	.00583	.23859	.24362	248.86
#3	.49388	248.58	.24260	.00590	.23930	.24003	249.26

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.47719	.23375	.23914	.24670	95.750	4.7838	.00687
Stddev	.00157	.00068	.00228	.00044	.267	.0306	.00031
%RSD	.32975	.29189	.95284	.17689	.27913	.64033	4.5446

#1	.47868	.23427	.23702	.24701	95.473	4.8092	.00686
#2	.47735	.23400	.24155	.24620	95.769	4.7925	.00720
#3	.47555	.23297	.23886	.24689	96.006	4.7498	.00657

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	248.78	.23620	-.00291	4.9890	.46943	-.09576	.47482
Stddev	.29	.00010	.00028	.0102	.00153	.00253	.00391
%RSD	.11640	.04162	9.5366	.20507	.32559	2.6470	.82328

#1	248.52	.23614	-.00291	4.9796	.46786	-.09420	.47761
#2	248.73	.23632	-.00319	4.9999	.47091	-.09440	.47649
#3	249.09	.23616	-.00264	4.9875	.46952	-.09869	.47035

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 High Limit
 Low Limit



Approved: October 21, 2011

Sample Name: ICSAB Acquired: 10/20/2011 11:23:22 Type: QC
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 9.3885	F 233.06	F 24.363	.47530	.24169	.43861	-.00229
Stddev	2.1357	.67	2.338	.00249	.00166	.25297	.00056
%RSD	22.748	.28958	9.5953	.52419	.68754	57.676	24.501

#1	11.853	232.36	25.874	.47495	.24358	.22049	-.00286
#2	8.0920	233.71	21.671	.47794	.24045	.71593	-.00230
#3	8.2201	233.11	25.545	.47300	.24104	.37940	-.00173

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.60000	.60000	.60000				
Low Limit	.40000	.40000	.40000				

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00226	-.00328	.43984	.24457	.47727	.00006
Stddev	.00010	.00093	.00257	.00385	.00236	.00004
%RSD	4.5387	28.499	.58344	1.5731	.49438	68.771

#1	.00236	-.00387	.43715	.24049	.47945	.00001
#2	.00216	-.00375	.44226	.24814	.47760	.00009
#3	.00225	-.00220	.44012	.24509	.47477	.00008

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	25408.	39523.
Stddev	95.	243.
%RSD	.37227	.61600

#1	25511.	39752.
#2	25326.	39550.
#3	25385.	39267.



Approved: October 21, 2011
Erin D. Long

Sample Name: CCV Acquired: 10/20/2011 11:26:38 Type: QC
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.39562	9.9232	.39586	.49484	.98003	.04906	9.8874
Stddev	.00502	.0614	.00082	.00638	.00132	.00032	.0449
%RSD	1.2687	.61829	.20830	1.2901	.13420	.65282	.45455

#1	.39904	9.8789	.39587	.49823	.97856	.04935	9.8367
#2	.39796	9.8973	.39502	.49881	.98111	.04911	9.9032
#3	.38985	9.9932	.39667	.48748	.98041	.04872	9.9223

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 Value
 Range

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04954	.20055	.49628	.50231	3.9687	49.076	.97855
Stddev	.00016	.00036	.00320	.00120	.0087	.375	.00441
%RSD	.32926	.17970	.64576	.23874	.21969	.76356	.45072

#1	.04956	.20070	.49968	.50358	3.9590	48.671	.97400
#2	.04970	.20081	.49584	.50216	3.9758	49.149	.97884
#3	.04937	.20014	.49331	.50119	3.9714	49.410	.98281

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 Value
 Range

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.9744	.49712	.99550	48.864	.50275	9.9927	.50145
Stddev	.0830	.00274	.00086	.235	.00159	.0213	.00227
%RSD	.83200	.55135	.08643	.48190	.31541	.21285	.45178

#1	9.8824	.49414	.99635	48.600	.50392	10.008	.50303
#2	9.9972	.49768	.99552	48.939	.50337	10.002	.50246
#3	10.044	.49954	.99463	49.052	.50094	9.9684	.49886

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 Value
 Range



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: CCV Acquired: 10/20/2011 11:26:38 Type: QC
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 12.933	10.113	F 11.998	1.1969	.39518	F 6.9732	1.0079
Stddev	7.610	.028	2.745	.0009	.00173	.1261	.0033
%RSD	58.844	.27967	22.880	.07720	.43842	1.8084	.32686

#1	15.690	10.138	14.786	1.1969	.39330	6.9859	1.0105
#2	4.3283	10.082	11.911	1.1978	.39672	7.0925	1.0089
#3	18.780	10.119	9.2973	1.1959	.39553	6.8412	1.0042

Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
Value	10.000		10.000			5.0000	
Range	10.000%		10.000%			10.000%	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.98586	.98559	.50863	.98900	.99923	1.0249
Stddev	.00649	.00496	.00254	.00788	.00424	.0112
%RSD	.65804	.50371	.49980	.79707	.42384	1.0947

#1	.98002	.98039	.50884	.99468	1.0034	1.0329
#2	.98473	.98611	.51107	.99231	.99929	1.0298
#3	.99285	.99028	.50600	.98000	.99496	1.0121

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	26713.	40620.
Stddev	177.	571.
%RSD	.66167	1.4061

#1	26527.	41279.
#2	26733.	40302.
#3	26879.	40279.



Approved: October 21, 2011
<i>Erin D. Long</i>

Sample Name: CCB Acquired: 10/20/2011 11:29:48 Type: Blank
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00020	.00196	.00050	-.00150	-.00023	.00000	-.00985
Stddev	.00031	.01139	.00063	.00013	.00004	.00000	.00771
%RSD	152.25	581.24	125.65	8.7500	15.477	121.75	78.218

#1	-.00013	-.00230	.00063	-.00159	-.00024	.00001	-.00146
#2	.00027	.01486	-.00018	-.00155	-.00026	.00000	-.01149
#3	.00047	-.00668	.00105	-.00135	-.00019	.00000	-.01661

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00001	-.00028	-.00006	-.00095	.00072	-.15822	-.00141
Stddev	.00003	.00009	.00018	.00018	.00101	.02351	.00145
%RSD	329.47	31.272	312.74	19.249	141.58	14.860	102.76

#1	-.00005	-.00018	-.00026	-.00079	.00188	-.15137	-.00294
#2	.00000	-.00032	.00006	-.00092	.00023	-.18440	-.00123
#3	.00002	-.00034	.00002	-.00115	.00003	-.13890	-.00006

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00171	.00006	-.00172	-.02092	-.00083	-.00671	-.00165
Stddev	.01410	.00029	.00018	.00672	.00032	.00301	.00082
%RSD	824.01	482.33	10.626	32.140	38.785	44.930	49.430

#1	-.00634	.00030	-.00183	-.01331	-.00052	-.00347	-.00224
#2	-.01291	-.00027	-.00181	-.02605	-.00080	-.00720	-.00199
#3	.01412	.00015	-.00151	-.02338	-.00116	-.00944	-.00072

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011

Emin D. Jong

Sample Name: CCB Acquired: 10/20/2011 11:29:48 Type: Blank
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 6.5246	F -.04610	F .96901	-.00197	-.00056	-.37994	-.00283
Stddev	5.5089	.01328	1.5683	.00136	.00147	.07965	.00018
%RSD	84.433	28.795	161.84	68.829	263.00	20.963	6.3882

#1	11.732	-.05537	2.1506	-.00244	-.00224	-.30815	-.00277
#2	.75666	-.03089	1.5667	-.00044	.00040	-.46562	-.00269
#3	7.0856	-.05205	-.81023	-.00303	.00017	-.36606	-.00304

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.01000	.01000	.01000				
Low Limit	-.01000	-.01000	-.01000				

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00022	.00010	.00096	-.00015	-.00165	.00416
Stddev	.00007	.00016	.00154	.00004	.00002	.00072
%RSD	30.577	159.11	160.02	27.561	1.2481	17.237

#1	-.00020	.00024	.00179	-.00016	-.00166	.00342
#2	-.00029	-.00007	-.00082	-.00011	-.00167	.00419
#3	-.00016	.00012	.00192	-.00019	-.00163	.00486

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	27437.	40909.
Stddev	117.	96.
%RSD	.42781	.23493

#1	27373.	40799.
#2	27365.	40956.
#3	27572.	40973.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: PBS 95 Acquired: 10/20/2011 11:33:20 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment: WG379445-02

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00036	-.00562	-.00176	-.00246	.00013	-.00001	.05153
Stddev	.00020	.00591	.00109	.00029	.00012	.00000	.00163
%RSD	55.927	105.05	62.023	11.910	95.871	35.051	3.1573

#1	.00030	-.01239	-.00170	-.00275	.00004	-.00001	.05126
#2	.00020	-.00303	-.00288	-.00248	.00026	-.00001	.05006
#3	.00059	-.00146	-.00070	-.00216	.00008	.00000	.05328

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00010	-.00060	.00066	-.00073	.00440	-.14744	-.00253
Stddev	.00002	.00006	.00009	.00040	.00136	.03316	.00114
%RSD	17.075	10.625	14.291	54.586	30.945	22.490	44.960

#1	.00008	-.00053	.00072	-.00028	.00318	-.17747	-.00314
#2	.00011	-.00065	.00070	-.00103	.00415	-.11186	-.00122
#3	.00010	-.00064	.00055	-.00087	.00586	-.15300	-.00324

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01589	-.00002	-.00168	-.00938	-.00071	F -.00956	-.00024
Stddev	.00536	.00018	.00011	.00493	.00007	.00116	.00051
%RSD	33.743	1146.3	6.7441	52.541	9.2505	12.149	210.72

#1	.01301	-.00012	-.00180	-.00635	-.00067	-.00913	.00034
#2	.01258	.00020	-.00166	-.00673	-.00079	-.01088	-.00051
#3	.02208	-.00012	-.00158	-.01507	-.00068	-.00868	-.00055

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	



Approved: October 21, 2011
<i>Erin D. Long</i>

Sample Name: PBS 95 Acquired: 10/20/2011 11:33:20 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment: WG379445-02

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 25.518	.16935	F -3.5198	-0.0031	.00123	.97427	-0.0294
Stddev	11.077	.05272	1.9895	.00064	.00056	.09421	.00020
%RSD	43.410	31.130	56.524	204.68	45.323	9.6697	6.7568

#1	28.322	.14878	-4.1801	-0.0055	.00065	1.0822	-.00280
#2	34.923	.22925	-5.0952	.00041	.00126	.93180	-.00317
#3	13.308	.13002	-1.2841	-0.0080	.00176	.90877	-.00286

Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000		9.0000				
Low Limit	-.00400		-.00400				

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00003	.00045	-.00201	.00005	.00060	.00229
Stddev	.00005	.00070	.00122	.00027	.00004	.00044
%RSD	187.72	156.01	60.843	509.27	6.4072	19.284

#1	-.00009	.00005	-.00152	.00002	.00056	.00181
#2	.00001	.00004	-.00339	.00034	.00063	.00236
#3	.00000	.00126	-.00110	-.00020	.00060	.00269

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	26884.	41968.
Stddev	166.	626.
%RSD	.61684	1.4911

#1	26723.	41626.
#2	26875.	41587.
#3	27054.	42690.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: LCSS 95 Acquired: 10/20/2011 11:36:46 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment: WG379445-03

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.19564	4.8736	.19015	.93998	.48678	.02471	4.8295
Stddev	.00133	.0374	.00068	.00619	.00097	.00016	.0104
%RSD	.67853	.76720	.35557	.65823	.19951	.62850	.21489

#1	.19713	4.8304	.18957	.94713	.48750	.02488	4.8187
#2	.19517	4.8951	.19090	.93642	.48717	.02464	4.8304
#3	.19461	4.8953	.18999	.93640	.48568	.02460	4.8394

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02441	.10200	.25215	.24504	1.9329	24.256	.48451
Stddev	.00008	.00010	.00172	.00040	.0045	.122	.00171
%RSD	.33908	.09499	.68344	.16228	.23510	.50166	.35264

#1	.02432	.10211	.25405	.24491	1.9287	24.124	.48317
#2	.02442	.10193	.25172	.24548	1.9377	24.281	.48643
#3	.02448	.10196	.25069	.24472	1.9324	24.364	.48392

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.8856	.24597	.52719	25.035	.25200	4.7416	.24830
Stddev	.0272	.00107	.00162	.057	.00084	.0058	.00045
%RSD	.55737	.43499	.30697	.22743	.33223	.12196	.18178

#1	4.8631	.24500	.52532	25.021	.25222	4.7387	.24855
#2	4.8779	.24579	.52813	24.986	.25270	4.7483	.24778
#3	4.9159	.24712	.52812	25.097	.25107	4.7378	.24858

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 High Limit
 Low Limit



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: LCSS 95 Acquired: 10/20/2011 11:36:46 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment: WG379445-03

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.8919	5.0059	.87771	.57476	.19181	F 337.60	.48758
Stddev	5.7036	.0832	1.8721	.00366	.00125	1.33	.00205
%RSD	82.757	1.6610	213.30	.63742	.64955	.39530	.42009

#1	8.2690	5.0955	.61919	.57088	.19039	336.06	.48931
#2	11.781	4.9312	-.85171	.57817	.19231	338.42	.48811
#3	.62592	4.9910	2.8656	.57522	.19273	338.32	.48532

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						90.000	
Low Limit						-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49123	.48939	.24479	.51787	.49331	.55569
Stddev	.00194	.00242	.00055	.00379	.00028	.00426
%RSD	.39494	.49402	.22562	.73192	.05751	.76608

#1	.48902	.48661	.24539	.52225	.49325	.56061
#2	.49204	.49061	.24466	.51567	.49362	.55324
#3	.49263	.49096	.24431	.51569	.49306	.55323

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	26627.	41112.
Stddev	194.	143.
%RSD	.72874	.34785

#1	26404.	41138.
#2	26726.	41241.
#3	26752.	40958.



Approved: October 21, 2011
<i>Erin D. Long</i>

Sample Name: L1110000501 Acquired: 10/20/2011 11:39:58 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00589	.20546	.00911	.19387	.00208	.00026	.12663
Stddev	.00021	.00774	.00090	.00194	.00009	.00002	.00208
%RSD	3.6442	3.7653	9.8421	1.0011	4.3101	7.0995	1.6414

#1	.00581	.21131	.00874	.19277	.00202	.00028	.12465
#2	.00573	.19668	.00846	.19272	.00218	.00026	.12645
#3	.00614	.20838	.01014	.19611	.00204	.00024	.12879

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00116	.00220	.00319	.00957	.06983	.34042	.05033
Stddev	.00003	.00007	.00026	.00027	.00253	.01490	.00059
%RSD	2.1839	3.2104	8.1530	2.8039	3.6231	4.3760	1.1773

#1	.00116	.00212	.00331	.00974	.07107	.35569	.05077
#2	.00114	.00223	.00337	.00926	.06692	.33965	.05058
#3	.00119	.00225	.00289	.00971	.07149	.32592	.04966

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.24713	.00279	.03268	.09298	.01065	.46669	.01112
Stddev	.00770	.00028	.00016	.01671	.00001	.00318	.00075
%RSD	3.1155	9.9265	.49356	17.978	.05361	.68050	6.7178

#1	.24162	.00247	.03250	.10900	.01066	.46332	.01156
#2	.25593	.00297	.03272	.09428	.01065	.46963	.01155
#3	.24385	.00292	.03282	.07565	.01065	.46711	.01026

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 High Limit
 Low Limit



Approved: October 21, 2011

Emin D. Long

Sample Name: L1110000501 Acquired: 10/20/2011 11:39:58 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 18.647	.27360	F -8.4659	.01177	.01167	1.7698	.10514
Stddev	6.182	.02910	2.6315	.00129	.00138	.4596	.00070
%RSD	33.153	10.635	31.083	10.937	11.814	25.969	.66481

#1	23.259	.28755	-9.9658	.01297	.01030	2.2880	.10435
#2	21.061	.29311	-10.005	.01041	.01306	1.6095	.10567
#3	11.622	.24016	-5.4275	.01193	.01166	1.4117	.10539

Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000		9.0000				
Low Limit	-.00400		-.00400				

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00505	.01109	.01736	.00576	.01417	.03048
Stddev	.00005	.00094	.00043	.00021	.00015	.00009
%RSD	1.0737	8.5026	2.4527	3.5860	1.0766	.30247

#1	.00500	.01054	.01749	.00554	.01409	.03055
#2	.00503	.01054	.01689	.00595	.01407	.03037
#3	.00511	.01217	.01771	.00579	.01435	.03050

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	27269.	42898.
Stddev	68.	205.
%RSD	.25100	.47849

#1	27346.	43040.
#2	27246.	42662.
#3	27214.	42991.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110000505 Acquired: 10/20/2011 11:43:19 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00186	.04320	.00045	.04761	.00034	.00006	.02978
Stddev	.00023	.00165	.00126	.00051	.00009	.00001	.00394
%RSD	12.322	3.8096	279.18	1.0763	27.581	10.808	13.217

#1	.00209	.04510	.00129	.04816	.00042	.00006	.03385
#2	.00163	.04221	.00105	.04750	.00023	.00007	.02950
#3	.00187	.04229	-.00099	.04716	.00036	.00006	.02599

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00035	.00005	.00146	.00174	.01288	-.05037	.01185
Stddev	.00002	.00002	.00018	.00010	.00237	.00639	.00111
%RSD	6.8796	40.508	12.386	5.5484	18.436	12.695	9.3544

#1	.00034	.00007	.00141	.00181	.01162	-.04338	.01060
#2	.00034	.00005	.00166	.00177	.01562	-.05592	.01271
#3	.00038	.00003	.00131	.00163	.01139	-.05181	.01224

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05669	.00057	.00653	.00302	.00227	.10837	.00280
Stddev	.00327	.00009	.00007	.00100	.00035	.00286	.00043
%RSD	5.7764	16.256	1.0331	33.235	15.477	2.6348	15.307

#1	.06036	.00067	.00646	.00378	.00266	.10634	.00268
#2	.05565	.00050	.00659	.00340	.00198	.11163	.00328
#3	.05407	.00053	.00653	.00188	.00218	.10713	.00245

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110000505 Acquired: 10/20/2011 11:43:19 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 9.7466	F -.06113	4.9563	.00224	.00164	1.0430	.03294
Stddev	5.5380	.03639	4.2919	.00112	.00141	.1784	.00020
%RSD	56.819	59.532	86.594	49.820	85.934	17.104	.61787

#1	6.8683	-.02097	3.1367	.00344	.00001	1.0994	.03317
#2	16.131	-.09194	1.8739	.00207	.00240	1.1864	.03284
#3	6.2405	-.07049	9.8582	.00122	.00251	.84322	.03281

Check ?	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000	9.0000					
Low Limit	-.00400	-.00400					

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00106	.00351	.00282	.00119	.00299	.00782
Stddev	.00001	.00075	.00069	.00012	.00004	.00008
%RSD	1.2120	21.242	24.522	10.179	1.5013	1.0795

#1	.00106	.00371	.00214	.00128	.00294	.00774
#2	.00105	.00269	.00282	.00105	.00300	.00782
#3	.00108	.00415	.00352	.00123	.00302	.00791

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	26920.	42775.
Stddev	161.	643.
%RSD	.59830	1.5037

#1	26750.	43478.
#2	26941.	42632.
#3	27070.	42216.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110000701 Acquired: 10/20/2011 11:46:45 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01034	.39565	.01785	.37546	.00408	.00048	.22040
Stddev	.00016	.01399	.00052	.00046	.00014	.00001	.00461
%RSD	1.5834	3.5355	2.8901	.12199	3.4696	2.1232	2.0934

#1	.01049	.37950	.01731	.37496	.00418	.00047	.22553
#2	.01035	.40364	.01791	.37586	.00392	.00049	.21909
#3	.01017	.40382	.01834	.37556	.00415	.00049	.21659

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00209	.00452	.00619	.01958	.05810	.81536	.09753
Stddev	.00005	.00020	.00027	.00022	.00083	.03564	.00096
%RSD	2.3654	4.5231	4.4291	1.1489	1.4267	4.3711	.98676

#1	.00211	.00429	.00588	.01954	.05748	.85388	.09817
#2	.00212	.00469	.00639	.01983	.05778	.80866	.09642
#3	.00203	.00458	.00631	.01938	.05904	.78355	.09799

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.47571	.00425	.06438	.18215	.02085	.90999	.01982
Stddev	.00286	.00017	.00026	.01063	.00012	.00186	.00014
%RSD	.60158	3.9518	.40794	5.8343	.57950	.20388	.71172

#1	.47440	.00424	.06455	.19078	.02071	.91115	.01975
#2	.47373	.00409	.06408	.17028	.02092	.91098	.01973
#3	.47899	.00442	.06452	.18539	.02092	.90785	.01998

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 High Limit
 Low Limit



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110000701 Acquired: 10/20/2011 11:46:45 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 12.125	.20551	2.3061	.02335	.01934	1.6894	.21281
Stddev	13.995	.03258	4.0286	.00078	.00135	.1270	.00045
%RSD	115.42	15.853	174.69	3.3490	6.9986	7.5150	.21139

#1	21.659	.24073	2.4531	.02409	.02091	1.7944	.21238
#2	18.657	.17645	6.2591	.02253	.01854	1.5483	.21328
#3	-3.9419	.19935	-1.7940	.02344	.01859	1.7253	.21278

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000						
Low Limit	-.00400						

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00996	.02159	.03700	.01095	.02059	.05617
Stddev	.00004	.00073	.00038	.00012	.00016	.00030
%RSD	.42271	3.3699	1.0160	1.1063	.77249	.54191

#1	.01001	.02083	.03729	.01087	.02075	.05584
#2	.00997	.02166	.03713	.01089	.02043	.05624
#3	.00992	.02228	.03658	.01109	.02060	.05643

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	27456.	42605.
Stddev	19.	396.
%RSD	.06915	.92828

#1	27463.	42168.
#2	27470.	42938.
#3	27435.	42710.



Approved: October 21, 2011
<i>Erin D. Long</i>

Sample Name: L1110000705 Acquired: 10/20/2011 11:50:05 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00319	.09473	.00326	.09346	.00081	.00014	.07272
Stddev	.00060	.00824	.00026	.00064	.00033	.00001	.00266
%RSD	18.835	8.7022	7.9341	.68273	40.048	5.7778	3.6574

#1	.00295	.10398	.00356	.09376	.00045	.00014	.07085
#2	.00275	.08815	.00315	.09273	.00091	.00014	.07577
#3	.00388	.09207	.00308	.09390	.00108	.00015	.07154

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00061	.00074	.00194	.00434	.01339	.06860	.02379
Stddev	.00003	.00004	.00018	.00024	.00100	.01673	.00037
%RSD	4.2411	4.9785	9.0362	5.5529	7.4371	24.388	1.5656

#1	.00059	.00078	.00193	.00423	.01423	.06524	.02421
#2	.00064	.00072	.00177	.00418	.01229	.05381	.02359
#3	.00061	.00072	.00212	.00462	.01366	.08676	.02355

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.12719	.00102	.01509	.03214	.00487	.23074	.00456
Stddev	.00856	.00036	.00017	.00137	.00009	.00425	.00089
%RSD	6.7342	35.211	1.1476	4.2585	1.7645	1.8433	19.418

#1	.13627	.00083	.01520	.03203	.00483	.22646	.00385
#2	.12602	.00079	.01518	.03356	.00497	.23497	.00556
#3	.11926	.00144	.01489	.03083	.00482	.23078	.00428

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110000705 Acquired: 10/20/2011 11:50:05 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 21.723	.13705	F -2.7810	.00644	.00425	.91061	.07325
Stddev	2.891	.01897	5.4325	.00158	.00109	.16902	.00019
%RSD	13.308	13.842	195.34	24.455	25.740	18.561	.26358

#1	24.851	.11961	-9.0471	.00583	.00390	.71566	.07345
#2	21.167	.13431	.10057	.00823	.00337	.99996	.07323
#3	19.150	.15725	.60358	.00527	.00547	1.0162	.07307

Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000		9.0000				
Low Limit	-.00400		-.00400				

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00240	.00609	.00709	.00276	.00554	.01537
Stddev	.00003	.00029	.00136	.00013	.00003	.00020
%RSD	1.4349	4.6820	19.170	4.8324	.55448	1.3263

#1	.00236	.00593	.00721	.00287	.00552	.01516
#2	.00243	.00593	.00568	.00261	.00553	.01539
#3	.00240	.00642	.00839	.00281	.00558	.01557

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	27248.	42599.
Stddev	53.	676.
%RSD	.19433	1.5873

#1	27215.	41842.
#2	27309.	42811.
#3	27221.	43144.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110048934 Acquired: 10/20/2011 11:53:29 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment: WG379445-01

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00503	307.58	.11429	.06944	2.2859	.01494	30.971
Stddev	.00026	1.54	.00037	.01272	.0128	.00002	.131
%RSD	5.0858	.50187	.32652	18.322	.56053	.11987	.42302

#1	.00527	305.88	.11412	.06063	2.2786	.01496	30.820
#2	.00476	307.97	.11403	.06366	2.3007	.01493	31.030
#3	.00505	308.89	.11471	.08402	2.2784	.01493	31.062

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00629	.13493	.33742	.22148	386.41	29.627	.24341
Stddev	.00005	.00003	.00357	.00455	18.10	.208	.00120
%RSD	.83471	.01967	1.0592	2.0543	4.6837	.70297	.49438

#1	.00635	.13493	.34012	.22377	373.51	29.403	.24289
#2	.00627	.13495	.33877	.22444	378.63	29.662	.24479
#3	.00626	.13490	.33336	.21624	407.10	29.814	.24256

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	31.289	12.599	.00372	.87186	.28992	5.0378	.41472
Stddev	.604	.101	.00011	.00349	.00233	.0373	.00276
%RSD	1.9307	.80496	2.9896	.40029	.80268	.74025	.66480

#1	30.820	12.505	.00364	.87244	.29159	5.0755	.41272
#2	31.077	12.585	.00367	.86812	.29090	5.0370	.41787
#3	31.970	12.706	.00384	.87502	.28726	5.0009	.41358

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011

Emin D. Long

Sample Name: L1110048934 Acquired: 10/20/2011 11:53:29 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment: WG379445-01

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 36.351	F 217.65	F -10267.	-0.0072	.01270	F 264.09	.01092
Stddev	16.102	.51	15.	.00190	.00216	.76	.00013
%RSD	44.295	.23606	.14997	262.37	16.994	.28789	1.1956

#1	18.256	217.28	-10267.	.00026	.01167	264.85	.01103
#2	49.099	217.43	-10252.	.00049	.01518	264.08	.01078
#3	41.700	218.23	-10283.	-.00291	.01126	263.33	.01095

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-.00400	-.00400	-.00400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.28486	.38064	.02138	.45868	1.4710	.13842
Stddev	.00116	.00094	.00127	.00105	.0033	.00101
%RSD	.40762	.24722	5.9470	.22944	.22500	.72613

#1	.28436	.38009	.02045	.45770	1.4674	.13743
#2	.28619	.38010	.02087	.45980	1.4740	.13838
#3	.28403	.38172	.02283	.45854	1.4715	.13944

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	27851.	46172.
Stddev	64.	1904.
%RSD	.23048	4.1245

#1	27818.	47237.
#2	27810.	47306.
#3	27925.	43973.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110048935 Acquired: 10/20/2011 11:56:46 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment: WG379445-04

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.17843	350.42	.28537	.77109	2.7213	.03682	35.570
Stddev	.00160	.79	.00100	.00606	.0117	.00033	.077
%RSD	.89833	.22466	.35043	.78608	.42837	.88884	.21557

#1	.17969	349.72	.28434	.77680	2.7190	.03712	35.506
#2	.17897	351.27	.28544	.77174	2.7109	.03688	35.549
#3	.17662	350.29	.28634	.76473	2.7339	.03647	35.655

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02672	.18714	.56835	.42365	368.50	54.068	.67364
Stddev	.00003	.00027	.00343	.00105	1.76	.041	.00190
%RSD	.10151	.14503	.60375	.24712	.47745	.07583	.28248

#1	.02670	.18724	.57133	.42435	366.48	54.115	.67254
#2	.02675	.18734	.56913	.42415	369.70	54.046	.67255
#3	.02670	.18683	.56460	.42244	369.33	54.042	.67584

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	36.365	10.243	.42923	22.296	.49852	5.0145	.58247
Stddev	.079	.020	.00040	.067	.00086	.0049	.00289
%RSD	.21737	.19883	.09361	.30257	.17283	.09849	.49534

#1	36.310	10.223	.42965	22.331	.49817	5.0147	.58427
#2	36.456	10.263	.42885	22.218	.49789	5.0193	.58400
#3	36.330	10.242	.42920	22.339	.49950	5.0094	.57914

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110048935 Acquired: 10/20/2011 11:56:46 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment: WG379445-04

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 49.026	F 217.85	F -10052.	.45950	.16857	F 889.10	.41727
Stddev	3.940	.32	4.	.00090	.00139	1.53	.00028
%RSD	8.0368	.14734	.04030	.19644	.82372	.17250	.06716

#1	52.679	217.87	-10056.	.46054	.17000	890.35	.41734
#2	44.851	218.16	-10052.	.45904	.16850	889.55	.41750
#3	49.548	217.51	-10048.	.45891	.16722	887.39	.41696

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-.00400	-.00400	-.00400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.74334	1.1933	.21427	.94868	1.8346	.14656
Stddev	.00102	.0022	.00105	.00793	.0036	.00115
%RSD	.13667	.18343	.49197	.83544	.19858	.78132

#1	.74232	1.1915	.21323	.95541	1.8388	.14723
#2	.74435	1.1927	.21533	.95070	1.8328	.14722
#3	.74333	1.1957	.21426	.93995	1.8322	.14524

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	27615.	46006.
Stddev	64.	330.
%RSD	.23327	.71650

#1	27545.	45831.
#2	27671.	45800.
#3	27630.	46386.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110048936 Acquired: 10/20/2011 12:00:01 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment: WG379445-05

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.17984	279.77	.27939	.72085	2.4517	.03582	34.380
Stddev	.00087	.33	.00093	.00734	.0020	.00029	.027
%RSD	.48644	.11852	.33418	1.0182	.08225	.81991	.07767

#1	.17890	279.97	.28001	.71238	2.4519	.03549	34.410
#2	.18064	279.38	.27984	.72507	2.4496	.03605	34.358
#3	.17997	279.94	.27832	.72511	2.4536	.03593	34.373

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02659	.15277	.51071	.42912	348.00	43.777	.62040
Stddev	.00006	.00012	.00289	.00105	1.87	.043	.00089
%RSD	.21472	.07985	.56559	.24506	.53613	.09840	.14331

#1	.02659	.15278	.50738	.42993	346.01	43.824	.62141
#2	.02665	.15288	.51236	.42949	349.71	43.739	.62006
#3	.02654	.15264	.51240	.42793	348.26	43.767	.61973

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	32.801	6.0244	.44053	22.366	.46269	4.9720	.57910
Stddev	.090	.0050	.00070	.036	.00066	.0171	.00269
%RSD	.27380	.08222	.15895	.16271	.14336	.34442	.46481

#1	32.706	6.0233	.44104	22.366	.46213	4.9854	.57603
#2	32.812	6.0202	.44082	22.330	.46342	4.9779	.58104
#3	32.884	6.0299	.43973	22.403	.46253	4.9527	.58024

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110048936 Acquired: 10/20/2011 12:00:01 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment: WG379445-05

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 33.406	F 214.02	F -9895.5	.47479	.17175	F 725.19	.42764
Stddev	16.585	.76	38.1	.00308	.00304	3.51	.00206
%RSD	49.648	.35742	.38489	.64820	1.7713	.48456	.48248

#1	25.548	214.88	-9936.8	.47823	.17511	729.03	.42530
#2	52.460	213.76	-9887.8	.47380	.16917	724.39	.42919
#3	22.210	213.41	-9861.8	.47232	.17099	722.14	.42843

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-0.00400	-0.00400	-0.00400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.71437	.93119	.21332	.87379	1.8116	.12589
Stddev	.00128	.00113	.00153	.00789	.0107	.00123
%RSD	.17866	.12161	.71688	.90301	.59036	.98037

#1	.71584	.93065	.21156	.86474	1.7993	.12447
#2	.71359	.93043	.21429	.87927	1.8169	.12672
#3	.71367	.93250	.21411	.87734	1.8186	.12648

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	27277.	44843.
Stddev	198.	145.
%RSD	.72587	.32414

#1	27505.	44680.
#2	27184.	44958.
#3	27143.	44891.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110048938 Acquired: 10/20/2011 12:03:15 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00453	252.29	.11980	.06754	2.5504	.01594	437.09
Stddev	.00044	.73	.00041	.00157	.0081	.00008	5.26
%RSD	9.7714	.28763	.33900	2.3298	.31759	.50966	1.2040

#1	.00447	251.96	.11994	.06914	2.5449	.01585	439.66
#2	.00413	251.79	.11934	.06600	2.5467	.01597	431.04
#3	.00501	253.12	.12011	.06748	2.5597	.01600	440.58

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00516	.17812	.29221	.25903	350.52	19.914	.23700
Stddev	.00008	.00025	.00164	.00188	1.17	.033	.00123
%RSD	1.5671	.13788	.56106	.72499	.33431	.16335	.51891

#1	.00522	.17828	.29032	.25766	351.07	19.926	.23586
#2	.00507	.17824	.29315	.26117	349.17	19.938	.23684
#3	.00520	.17784	.29317	.25827	351.30	19.877	.23830

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	49.141	10.047	.00895	3.3269	.32576	3.7243	.39116
Stddev	.125	.022	.00019	.0151	.00130	.0270	.00115
%RSD	.25334	.22386	2.1329	.45368	.40017	.72607	.29308

#1	49.258	10.040	.00884	3.3352	.32608	3.7432	.39143
#2	49.010	10.029	.00917	3.3360	.32687	3.7363	.39216
#3	49.156	10.072	.00883	3.3094	.32432	3.6933	.38991

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011

Emin D. Long

Sample Name: L1110048938 Acquired: 10/20/2011 12:03:15 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 26.058	F 597.86	F -10057.	.00115	.01167	F 258.03	.00897
Stddev	1.663	1.63	27.	.00309	.00077	3.11	.00019
%RSD	6.3827	.27345	.26489	267.70	6.5595	1.2061	2.1565

#1	25.486	598.54	-10072.	-.00109	.01254	260.73	.00915
#2	27.931	599.04	-10073.	.00467	.01133	258.72	.00876
#3	24.756	595.99	-10026.	-.00013	.01112	254.63	.00899

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-.00400	-.00400	-.00400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.3535	.23773	.01800	.39330	1.2691	.13194
Stddev	.0215	.00056	.00184	.00127	.0022	.00055
%RSD	.91390	.23434	10.209	.32206	.17726	.41637

#1	2.3782	.23747	.01611	.39221	1.2676	.13147
#2	2.3389	.23736	.01979	.39298	1.2717	.13180
#3	2.3435	.23837	.01810	.39469	1.2680	.13254

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	26738.	43482.
Stddev	125.	238.
%RSD	.46883	.54682

#1	26866.	43249.
#2	26734.	43724.
#3	26615.	43474.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: CCV Acquired: 10/20/2011 12:06:51 Type: QC
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.39687	9.8812	.39332	.49673	.97231	.04896	9.7908
Stddev	.00091	.0373	.00165	.00099	.00087	.00007	.0362
%RSD	.22880	.37727	.42034	.19961	.08928	.15068	.36968

#1	.39747	9.8834	.39514	.49569	.97204	.04894	9.7746
#2	.39583	9.9173	.39192	.49685	.97161	.04889	9.8323
#3	.39732	9.8428	.39291	.49766	.97328	.04904	9.7655

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04947	.19978	.49657	.49921	3.9573	49.178	.97458
Stddev	.00007	.00050	.00065	.00061	.0016	.233	.00502
%RSD	.13527	.25012	.13006	.12159	.04150	.47310	.51555

#1	.04946	.19923	.49585	.49876	3.9570	48.912	.96884
#2	.04953	.19993	.49677	.49898	3.9591	49.344	.97815
#3	.04940	.20020	.49710	.49990	3.9558	49.277	.97676

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.046	.49586	.99110	49.044	.50125	9.9367	.50131
Stddev	.020	.00225	.00174	.255	.00135	.0165	.00177
%RSD	.19958	.45321	.17527	.52070	.26989	.16567	.35273

#1	10.032	.49347	.98917	48.765	.49983	9.9281	.49966
#2	10.069	.49794	.99158	49.101	.50141	9.9264	.50110
#3	10.036	.49616	.99255	49.266	.50252	9.9557	.50317

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: CCV Acquired: 10/20/2011 12:06:51 Type: QC
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 6.4760	10.138	10.211	1.1933	.39231	F 7.0805	1.0048
Stddev	11.609	.104	2.082	.0049	.00365	.0106	.0028
%RSD	179.27	1.0303	20.386	.41157	.93104	.14924	.28053

#1	-6.9188	10.028	9.3771	1.1884	.39228	7.0748	1.0041
#2	12.710	10.149	8.6764	1.1931	.38868	7.0739	1.0024
#3	13.637	10.236	12.581	1.1983	.39598	7.0927	1.0079

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
Value	10.000					5.0000	
Range	-10.000%					10.000%	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.97862	.98097	.50868	.99281	.99469	1.0030
Stddev	.00638	.00190	.00185	.00235	.00094	.0035
%RSD	.65179	.19383	.36338	.23646	.09497	.34661

#1	.97152	.97878	.50987	.99071	.99360	1.0060
#2	.98385	.98193	.50655	.99238	.99515	1.0038
#3	.98050	.98219	.50961	.99534	.99532	.99917

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	27239.	40803.
Stddev	62.	84.
%RSD	.22889	.20669

#1	27288.	40782.
#2	27261.	40732.
#3	27169.	40896.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: CCB Acquired: 10/20/2011 12:10:01 Type: Blank
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00031	-0.00757	.00002	-0.00126	-0.00020	-0.00001	-0.01370
Stddev	.00031	.00557	.00058	.00039	.00013	.00001	.00329
%RSD	101.02	73.557	3104.8	30.828	62.234	84.483	24.012

#1	.00002	-0.01392	.00047	-0.00084	-0.00031	-0.00002	-0.01647
#2	.00027	-0.00524	.00021	-0.00161	-0.00024	-0.00001	-0.01457
#3	.00063	-0.00354	-0.00063	-0.00132	-0.00006	.00000	-0.01007

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00010	-0.00013	-0.00025	-0.00068	-0.00001	-0.15428	-0.00189
Stddev	.00013	.00014	.00018	.00018	.00238	.01404	.00014
%RSD	132.20	111.42	71.626	26.478	16758.	9.1023	7.6058

#1	-0.00022	-0.00003	-0.00026	-0.00076	-0.00163	-.14756	-0.00179
#2	-0.00010	-0.00007	-0.00007	-0.00081	-0.00113	-.14485	-0.00181
#3	.00003	-0.00029	-0.00043	-0.00048	.00272	-.17042	-0.00205

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.01198	-0.00009	-0.00176	-0.02749	-0.00100	-0.00588	-0.00101
Stddev	.00175	.00018	.00009	.00756	.00019	.00134	.00029
%RSD	14.627	200.53	5.1370	27.501	19.174	22.722	28.200

#1	-0.01398	-0.00017	-0.00168	-0.03376	-0.00083	-0.00693	-0.00072
#2	-0.01124	.00012	-0.00174	-0.02962	-0.00096	-0.00438	-0.00102
#3	-0.01072	-0.00022	-0.00186	-0.01910	-0.00121	-0.00634	-0.00129

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: CCB Acquired: 10/20/2011 12:10:01 Type: Blank
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 15.365	F -.05864	F -2.3777	-.00101	-.00055	-.29184	-.00269
Stddev	5.772	.02827	3.5654	.00078	.00202	.05667	.00013
%RSD	37.564	48.207	149.95	76.487	367.07	19.420	4.8189

#1	20.896	-.04021	-4.8245	-.00016	.00176	-.32440	-.00261
#2	9.3795	-.04452	-4.0216	-.00166	-.00199	-.32471	-.00284
#3	15.819	-.09118	1.7130	-.00122	-.00142	-.22640	-.00262

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.01000	.01000	.01000				
Low Limit	-.01000	-.01000	-.01000				

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00026	-.00044	-.00005	-.00029	-.00184	.00467
Stddev	.00002	.00047	.00060	.00019	.00004	.00073
%RSD	8.8453	106.80	1289.5	65.548	2.2713	15.725

#1	-.00023	-.00010	-.00049	-.00045	-.00187	.00396
#2	-.00026	-.00025	-.00029	-.00008	-.00185	.00463
#3	-.00027	-.00098	.00064	-.00033	-.00179	.00542

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	27282.	40859.
Stddev	21.	175.
%RSD	.07653	.42942

#1	27295.	40665.
#2	27258.	41007.
#3	27293.	40904.



Approved: October 21, 2011

Emin D. Long

Sample Name: L1110048939 Acquired: 10/20/2011 12:13:31 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00700	146.52	.06332	.15753	3.5847	.00791	F 4096.3
Stddev	.00037	.37	.00222	.00224	.0075	.00002	62.3
%RSD	5.3364	.25324	3.5099	1.4245	.20827	.30596	1.5201

#1	.00664	146.28	.06210	.15763	3.5914	.00789	4065.0
#2	.00697	146.34	.06588	.15524	3.5766	.00794	4055.9
#3	.00739	146.95	.06197	.15972	3.5860	.00791	4168.0

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit							900.00
Low Limit							-1.0000

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00793	.07019	.16899	.23688	169.73	18.658	.31724
Stddev	.00011	.00033	.00119	.00044	.78	.012	.00056
%RSD	1.3794	.46309	.70422	.18630	.46076	.06674	.17797

#1	.00791	.07031	.16825	.23645	169.69	18.647	.31723
#2	.00804	.07045	.17037	.23733	168.97	18.656	.31668
#3	.00782	.06983	.16836	.23686	170.54	18.671	.31781

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	140.72	5.6992	.01931	5.8097	.30061	7.0455	.14812
Stddev	.78	.0178	.00011	.0058	.00103	.0316	.00200
%RSD	.55215	.31254	.58628	.10010	.34104	.44887	1.3491

#1	140.36	5.6923	.01934	5.8075	.30019	7.0484	.14701
#2	140.19	5.6858	.01941	5.8163	.30178	7.0755	.14692
#3	141.61	5.7194	.01919	5.8054	.29987	7.0125	.15042

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110048939 Acquired: 10/20/2011 12:13:31 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 18.726	F 5476.1	F -42670.	.00362	.01806	F 390.34	.00426
Stddev	10.704	18.3	77.	.00064	.00262	6.20	.00041
%RSD	57.162	.33354	.18002	17.586	14.494	1.5890	9.7215

#1	10.835	5476.1	-42589.	.00289	.01805	393.93	.00455
#2	14.432	5494.4	-42742.	.00398	.02069	393.92	.00379
#3	30.910	5457.9	-42679.	.00399	.01545	383.18	.00446

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-.00400	-.00400	-.00400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 19.435	.89566	.00952	.26804	.75464	.14713
Stddev	.096	.00222	.00068	.00085	.00128	.00049
%RSD	.49638	.24779	7.1106	.31873	.16900	.33158

#1	19.542	.89471	.00876	.26719	.75319	.14660
#2	19.353	.89408	.00973	.26890	.75560	.14721
#3	19.411	.89820	.01006	.26804	.75512	.14757

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	4.5000					
Low Limit	-.01000					

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	23150.	41421.
Stddev	35.	333.
%RSD	.15156	.80370

#1	23183.	41399.
#2	23113.	41764.
#3	23154.	41099.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110048940 Acquired: 10/20/2011 12:16:57 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00562	241.83	.12370	.06527	2.5254	.01509	240.73
Stddev	.00041	.32	.00042	.00345	.0032	.00007	1.15
%RSD	7.2699	.13384	.34354	5.2906	.12507	.48708	.47970

#1	.00515	241.69	.12416	.06843	2.5290	.01515	241.64
#2	.00581	242.20	.12332	.06580	2.5242	.01501	241.13
#3	.00590	241.61	.12363	.06158	2.5230	.01510	239.43

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00405	.16568	.27665	.25040	406.10	19.516	.22090
Stddev	.00016	.00053	.00119	.00304	4.52	.026	.00181
%RSD	4.0120	.31738	.42939	1.2133	1.1120	.13479	.81833

#1	.00392	.16529	.27795	.24694	410.90	19.500	.22253
#2	.00400	.16547	.27636	.25162	405.44	19.546	.22122
#3	.00423	.16628	.27563	.25264	401.95	19.501	.21895

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	36.907	18.676	.00569	2.3892	.32771	3.8843	.33965
Stddev	.088	.019	.00028	.0075	.00177	.0023	.00198
%RSD	.23782	.10212	4.9769	.31262	.54123	.05830	.58307

#1	36.809	18.667	.00589	2.3812	.32667	3.8853	.33896
#2	36.979	18.698	.00536	2.3905	.32670	3.8858	.33811
#3	36.932	18.662	.00582	2.3960	.32976	3.8817	.34188

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011

Emin D. Long

Sample Name: L1110048940 Acquired: 10/20/2011 12:16:57 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 26.563	F 438.01	F -11247.	.00070	.01610	F 308.48	.00873
Stddev	2.890	1.63	47.	.00214	.00158	4.07	.00053
%RSD	10.881	.37239	.41416	308.20	9.7838	1.3195	6.0757

#1	29.833	437.03	-11210.	.00172	.01720	311.87	.00914
#2	24.349	437.10	-11231.	-.00177	.01430	309.60	.00892
#3	25.507	439.89	-11299.	.00213	.01680	303.97	.00813

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-.00400	-.00400	-.00400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.2370	.30841	.02542	.39027	1.0689	.13200
Stddev	.0009	.00034	.00133	.00121	.0026	.00022
%RSD	.06974	.11089	5.2139	.31016	.24561	.16635

#1	1.2379	.30860	.02650	.39148	1.0681	.13222
#2	1.2371	.30862	.02394	.38906	1.0719	.13178
#3	1.2361	.30802	.02583	.39027	1.0668	.13202

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	27405.	45572.
Stddev	17.	335.
%RSD	.06135	.73563

#1	27386.	45293.
#2	27413.	45479.
#3	27417.	45944.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110048941 Acquired: 10/20/2011 12:20:23 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00626	231.92	.11158	.07824	2.4855	.01340	87.870
Stddev	.00044	.78	.00248	.00183	.0053	.00007	.061
%RSD	7.0577	.33623	2.2210	2.3347	.21377	.55662	.06961

#1	.00583	231.02	.10950	.07883	2.4883	.01333	87.827
#2	.00622	232.34	.11433	.07970	2.4794	.01341	87.843
#3	.00671	232.41	.11092	.07619	2.4889	.01348	87.940

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00632	.09235	.27154	.28983	322.07	23.398	.19096
Stddev	.00008	.00026	.00098	.00107	3.25	.169	.00116
%RSD	1.2359	.28160	.36186	.36810	1.0093	.72078	.60752

#1	.00638	.09209	.27042	.29063	320.09	23.203	.19222
#2	.00634	.09261	.27192	.29025	325.82	23.499	.19069
#3	.00623	.09234	.27227	.28862	320.30	23.492	.18995

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	32.039	6.4883	.00549	2.0841	.26237	6.5944	.40086
Stddev	.203	.0273	.00034	.0119	.00078	.0057	.00164
%RSD	.63326	.42115	6.2485	.57005	.29783	.08583	.40964

#1	31.834	6.4606	.00516	2.0707	.26147	6.6005	.40193
#2	32.240	6.5152	.00547	2.0881	.26281	6.5933	.40169
#3	32.043	6.4891	.00584	2.0934	.26283	6.5894	.39897

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011

Emin D. Long

Sample Name: L1110048941 Acquired: 10/20/2011 12:20:23 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 27.973	F 435.29	F -19322.	-0.0157	.01152	F 301.37	.01097
Stddev	7.213	.89	71.	.00261	.00316	1.87	.00039
%RSD	25.785	.20490	.36956	166.76	27.466	.62008	3.5217

#1	24.952	436.25	-19403.	.00128	.01502	300.92	.01132
#2	22.762	434.48	-19297.	-.00386	.00885	303.43	.01103
#3	36.205	435.13	-19267.	-.00212	.01070	299.78	.01056

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-.00400	-.00400	-.00400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.81953	.35438	.01127	.38808	1.7325	.12457
Stddev	.00458	.00398	.00087	.00076	.0058	.00052
%RSD	.55908	1.1243	7.7170	.19520	.33352	.42034

#1	.81426	.35023	.01192	.38733	1.7391	.12405
#2	.82259	.35475	.01028	.38804	1.7300	.12454
#3	.82174	.35818	.01160	.38885	1.7284	.12510

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	27603.	44986.
Stddev	17.	340.
%RSD	.06267	.75597

#1	27602.	44977.
#2	27621.	44651.
#3	27586.	45331.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110048941PS Acquired: 10/20/2011 12:23:42 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment: WG379617-01

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.20076	212.71	.28738	.99595	2.6988	.03604	83.664
Stddev	.00198	.70	.00250	.00690	.0078	.00030	.122
%RSD	.98463	.32675	.87153	.69251	.28813	.82051	.14553
#1	.19848	213.51	.29026	.98839	2.6915	.03574	83.770
#2	.20172	212.31	.28622	.99755	2.7070	.03606	83.690
#3	.20206	212.31	.28567	1.0019	2.6979	.03633	83.531

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02932	.17650	.48175	.48783	285.02	44.686	.64411
Stddev	.00010	.00040	.00571	.00132	2.49	.160	.00135
%RSD	.33387	.22401	1.1846	.27001	.87197	.35776	.20995
#1	.02938	.17679	.47547	.48753	282.16	44.871	.64453
#2	.02937	.17666	.48315	.48927	286.69	44.594	.64520
#3	.02921	.17605	.48663	.48669	286.20	44.595	.64260

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	33.117	6.0348	.49700	25.954	.46612	5.9610	.58727
Stddev	.263	.0204	.00185	.038	.00286	.0473	.00161
%RSD	.79321	.33762	.37253	.14526	.61415	.79369	.27403
#1	33.412	6.0581	.49853	25.992	.46839	5.9954	.58546
#2	33.033	6.0261	.49754	25.952	.46707	5.9805	.58854
#3	32.907	6.0203	.49494	25.917	.46291	5.9070	.58779

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 High Limit
 Low Limit



Approved: October 21, 2011
Emin D. Long

Sample Name: L1110048941PS Acquired: 10/20/2011 12:23:42 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment: WG379617-01

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 18.450	F 399.24	F -17531.	.55457	.20334	F 590.49	.01153
Stddev	5.143	1.78	84.	.00690	.00315	4.83	.00013
%RSD	27.878	.44555	.48102	1.2438	1.5475	.81855	1.1426

#1	22.141	399.21	-17560.	.55819	.20512	594.57	.01156
#2	12.575	401.03	-17598.	.55890	.20519	591.75	.01139
#3	20.634	397.48	-17437.	.54661	.19971	585.15	.01165

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-.00400	-.00400	-.00400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.2118	.78027	.23346	.84244	2.0240	.11207
Stddev	.0042	.00248	.00124	.00467	.0067	.00085
%RSD	.34906	.31722	.53150	.55449	.32925	.75443

#1	1.2167	.78269	.23204	.83706	2.0169	.11110
#2	1.2089	.77774	.23398	.84489	2.0249	.11259
#3	1.2099	.78038	.23435	.84538	2.0302	.11254

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	27580.	45391.
Stddev	107.	671.
%RSD	.38824	1.4773

#1	27702.	44665.
#2	27540.	45522.
#3	27500.	45987.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110048941SDL Acquired: 10/20/2011 12:26:57 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: 5 Custom ID2: Custom ID3:
 Comment: WG379617-02

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00116	47.177	.02335	.01595	.49603	.00271	17.791
Stddev	.00033	.135	.00077	.00037	.00133	.00001	.073
%RSD	28.020	.28630	3.2812	2.2917	.26899	.26223	.41096

#1	.00138	47.028	.02281	.01575	.49487	.00271	17.711
#2	.00079	47.214	.02303	.01573	.49574	.00272	17.809
#3	.00132	47.290	.02423	.01637	.49749	.00270	17.853

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00122	.01959	.05617	.06245	68.396	4.9434	.03594
Stddev	.00010	.00011	.00004	.00038	.054	.0316	.00084
%RSD	7.8892	.58594	.07647	.61213	.07900	.63918	2.3354

#1	.00113	.01966	.05614	.06244	68.334	4.9322	.03665
#2	.00122	.01966	.05622	.06283	68.435	4.9791	.03501
#3	.00132	.01946	.05615	.06207	68.418	4.9189	.03615

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.9497	1.3539	-.00052	.41109	.05562	1.4058	.08997
Stddev	.0197	.0013	.00006	.00882	.00038	.0014	.00169
%RSD	.28280	.09533	10.798	2.1456	.67764	.09916	1.8759

#1	6.9393	1.3528	-.00046	.40227	.05597	1.4071	.08898
#2	6.9724	1.3537	-.00051	.41991	.05567	1.4060	.08901
#3	6.9375	1.3553	-.00058	.41109	.05522	1.4044	.09192

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011

Emin D. Jong

Sample Name: L1110048941SDL Acquired: 10/20/2011 12:26:57 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: 5 Custom ID2: Custom ID3:
 Comment: WG379617-02

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 23.297	F 94.682	F -4135.3	-0.00256	.00020	63.261	-0.00032
Stddev	4.559	.362	8.4	.00166	.00095	.435	.00024
%RSD	19.569	.38211	.20314	65.030	473.48	.68730	75.740

#1	23.514	94.971	-4138.5	-0.00229	-0.00045	63.162	-0.00051
#2	27.744	94.800	-4141.5	-0.00434	-0.00024	63.737	-0.00040
#3	18.633	94.276	-4125.7	-0.00105	.00128	62.885	-0.00005

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000	9.0000	9.0000				
Low Limit	-0.00400	-0.00400	-0.00400				

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.16317	.07153	.00416	.07925	.37479	.02407
Stddev	.00082	.00120	.00099	.00026	.00031	.00013
%RSD	.50354	1.6833	23.707	.33419	.08271	.52803

#1	.16223	.07290	.00347	.07945	.37510	.02420
#2	.16352	.07066	.00529	.07895	.37480	.02407
#3	.16376	.07102	.00372	.07934	.37448	.02395

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	28431.	43327.
Stddev	98.	400.
%RSD	.34454	.92368

#1	28524.	43783.
#2	28441.	43037.
#3	28329.	43159.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110048941SDL Acquired: 10/20/2011 12:30:11 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: 25 Custom ID2: Custom ID3:
 Comment: WG379617-02

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00023	9.6541	.00485	.00200	.10024	.00056	3.6192
Stddev	.00021	.0152	.00103	.00028	.00057	.00002	.0101
%RSD	91.334	.15721	21.134	13.869	.56468	2.8996	.27970

#1	-.00001	9.6705	.00373	.00197	.09961	.00054	3.6174
#2	.00039	9.6405	.00509	.00173	.10042	.00057	3.6301
#3	.00031	9.6512	.00574	.00228	.10069	.00056	3.6101

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00014	.00408	.01097	.01251	13.874	.83565	.00652
Stddev	.00002	.00013	.00030	.00029	.050	.03451	.00063
%RSD	15.395	3.1312	2.7700	2.3376	.36194	4.1299	9.7395

#1	.00015	.00397	.01066	.01284	13.829	.87517	.00592
#2	.00012	.00405	.01127	.01240	13.928	.82037	.00645
#3	.00016	.00422	.01097	.01229	13.864	.81142	.00718

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.4296	.28083	-.00182	.05733	.01086	.28616	.01829
Stddev	.0031	.00112	.00012	.00285	.00061	.00324	.00078
%RSD	.21494	.39988	6.5532	4.9742	5.5859	1.1321	4.2805

#1	1.4332	.28149	-.00185	.05457	.01020	.28448	.01810
#2	1.4278	.28147	-.00192	.05716	.01139	.28990	.01915
#3	1.4279	.27953	-.00169	.06026	.01099	.28411	.01761

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011

Emin D. Long

Sample Name: L1110048941SDL Acquired: 10/20/2011 12:30:11 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: 25 Custom ID2: Custom ID3:
 Comment: WG379617-02

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 13.801	F 20.195	F -870.79	-0.00431	-0.00223	12.597	-0.00275
Stddev	4.635	.144	6.87	.00116	.00054	.433	.00010
%RSD	33.585	.71082	.78919	26.958	24.228	3.4340	3.6428

#1	16.683	20.036	-862.86	-0.00328	-0.00284	12.146	-0.00265
#2	8.4544	20.234	-875.01	-0.00557	-0.00181	13.008	-0.00277
#3	16.266	20.315	-874.51	-0.00409	-0.00205	12.638	-0.00285

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000	9.0000	9.0000				
Low Limit	-0.00400	-0.00400	-0.00400				

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.03329	.01453	.00216	.01618	.07953	.00387
Stddev	.00019	.00100	.00077	.00012	.00032	.00009
%RSD	.55860	6.8962	35.777	.74607	.40229	2.3836

#1	.03350	.01553	.00140	.01610	.07916	.00377
#2	.03326	.01454	.00214	.01612	.07973	.00395
#3	.03313	.01353	.00295	.01632	.07970	.00389

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	28372.	42097.
Stddev	98.	147.
%RSD	.34690	.34950

#1	28484.	41939.
#2	28300.	42124.
#3	28332.	42229.



Approved: October 21, 2011
Emin D. Long

Sample Name: L1110048942 Acquired: 10/20/2011 12:33:32 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00460	248.39	.12592	.05367	2.1725	.01532	46.406
Stddev	.00038	.89	.00086	.00192	.0099	.00008	.097
%RSD	8.3390	.36029	.68135	3.5805	.45712	.50217	.20946

#1	.00440	247.41	.12499	.05223	2.1816	.01540	46.325
#2	.00504	248.60	.12609	.05585	2.1740	.01525	46.514
#3	.00435	249.16	.12668	.05294	2.1619	.01529	46.379

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00572	.10849	.31545	.24685	384.40	21.150	.21741
Stddev	.00004	.00038	.00202	.00157	2.16	.088	.00192
%RSD	.74187	.35019	.64116	.63668	.56124	.41839	.88238

#1	.00569	.10817	.31504	.24833	382.06	21.060	.21799
#2	.00571	.10891	.31367	.24701	386.31	21.155	.21897
#3	.00577	.10841	.31765	.24520	384.82	21.236	.21527

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	31.217	9.9348	.00414	1.3981	.29069	4.2267	.45540
Stddev	.263	.0320	.00009	.0037	.00065	.0112	.00087
%RSD	.84404	.32231	2.1567	.26294	.22495	.26598	.19133

#1	30.993	9.9114	.00409	1.3965	.29116	4.2269	.45546
#2	31.151	9.9218	.00409	1.4023	.29096	4.2378	.45623
#3	31.507	9.9713	.00424	1.3955	.28994	4.2153	.45449

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011

Emin D. Long

Sample Name: L1110048942 Acquired: 10/20/2011 12:33:32 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 37.385	F 217.08	F -9457.9	.00062	.01413	F 206.05	.00962
Stddev	6.094	.24	34.9	.00210	.00200	.26	.00018
%RSD	16.300	.10895	.36944	337.91	14.120	.12429	1.8468

#1	34.209	217.36	-9462.4	-.00078	.01342	206.34	.00976
#2	33.536	216.95	-9490.3	.00304	.01638	205.96	.00942
#3	44.411	216.95	-9420.9	-.00039	.01259	205.85	.00968

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-.00400	-.00400	-.00400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.36742	.25190	.01814	.40424	1.5131	.11816
Stddev	.00109	.00056	.00063	.00210	.0047	.00070
%RSD	.29784	.22285	3.4485	.51898	.31000	.59306

#1	.36621	.25245	.01816	.40584	1.5181	.11855
#2	.36770	.25192	.01876	.40186	1.5088	.11735
#3	.36834	.25133	.01751	.40500	1.5125	.11857

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	27666.	44722.
Stddev	55.	192.
%RSD	.19948	.42843

#1	27606.	44767.
#2	27715.	44888.
#3	27676.	44512.



Approved: October 21, 2011

Emin D. Long

Sample Name: L1110048943 Acquired: 10/20/2011 12:36:49 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00338	217.65	.13433	.05657	1.9009	.01553	53.181
Stddev	.00028	1.11	.00115	.00126	.0011	.00008	.155
%RSD	8.3207	.50848	.85569	2.2222	.05708	.51931	.29148

#1	.00322	216.88	.13383	.05614	1.9021	.01557	53.038
#2	.00322	217.15	.13564	.05799	1.9005	.01559	53.159
#3	.00371	218.92	.13351	.05559	1.9001	.01544	53.345

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00510	.20434	.29813	.24971	411.78	16.990	.17479
Stddev	.00013	.00031	.00079	.00025	1.71	.178	.00248
%RSD	2.6386	.15267	.26557	.09833	.41484	1.0470	1.4161

#1	.00505	.20410	.29893	.24943	410.74	16.848	.17764
#2	.00525	.20470	.29811	.24980	413.75	16.932	.17351
#3	.00500	.20423	.29735	.24990	410.85	17.189	.17321

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	28.627	11.053	.00484	1.7870	.26938	4.8103	.35527
Stddev	.612	.100	.00013	.0177	.00140	.0243	.00313
%RSD	2.1369	.90631	2.7838	.98840	.51968	.50437	.87986

#1	28.003	10.959	.00489	1.7776	.26818	4.7851	.35267
#2	28.652	11.042	.00469	1.7760	.27091	4.8335	.35874
#3	29.226	11.158	.00494	1.8073	.26904	4.8125	.35440

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110048943 Acquired: 10/20/2011 12:36:49 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 30.896	F 280.97	F -12580.	.00018	.01267	F 273.30	.00902
Stddev	10.209	.57	95.	.00141	.00033	.83	.00034
%RSD	33.042	.20243	.75748	787.16	2.6353	.30344	3.7895

#1	21.432	280.48	-12504.	.00090	.01264	272.43	.00863
#2	29.543	281.59	-12687.	.00109	.01235	274.09	.00924
#3	41.714	280.84	-12549.	-.00145	.01302	273.36	.00920

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-.00400	-.00400	-.00400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.42460	.22730	.01682	.40265	.99254	.10966
Stddev	.00191	.00113	.00024	.00174	.00366	.00025
%RSD	.44968	.49684	1.4298	.43282	.36914	.22482

#1	.42436	.22751	.01704	.40363	.99527	.10978
#2	.42282	.22608	.01686	.40368	.99397	.10982
#3	.42662	.22830	.01656	.40064	.98837	.10937

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	27391.	43380.
Stddev	92.	584.
%RSD	.33412	1.3459

#1	27302.	44017.
#2	27387.	43251.
#3	27485.	42871.



Approved: October 21, 2011

Emin D. Long

Sample Name: L1110048944 Acquired: 10/20/2011 12:40:08 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00447	307.78	.15749	.06275	1.9044	.01847	34.321
Stddev	.00020	1.23	.00212	.00590	.0041	.00014	.013
%RSD	4.5817	.39952	1.3490	9.3961	.21678	.75899	.03762

#1	.00444	306.36	.15704	.05604	1.9089	.01863	34.324
#2	.00428	308.37	.15563	.06507	1.9007	.01840	34.331
#3	.00468	308.60	.15981	.06713	1.9036	.01839	34.306

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00143	.23825	.37745	.26964	503.65	23.892	.26128
Stddev	.00005	.00005	.00377	.00326	9.29	.130	.00014
%RSD	3.2146	.02239	.99923	1.2083	1.8435	.54558	.05179

#1	.00140	.23821	.38180	.27340	494.17	23.789	.26113
#2	.00148	.23822	.37537	.26777	504.06	23.848	.26137
#3	.00140	.23831	.37518	.26775	512.73	24.038	.26136

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	36.078	15.180	.00529	3.2235	.33079	3.3910	.36278
Stddev	.160	.044	.00023	.0141	.00106	.0180	.00143
%RSD	.44378	.29077	4.2798	.43571	.31975	.53081	.39375

#1	35.964	15.144	.00514	3.2252	.33129	3.4041	.36126
#2	36.010	15.167	.00555	3.2087	.33151	3.3984	.36409
#3	36.261	15.229	.00518	3.2366	.32958	3.3705	.36298

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011

Emin D. Long

Sample Name: L1110048944 Acquired: 10/20/2011 12:40:08 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 44.653	F 166.86	F -7253.7	.00131	.01456	F 296.94	.01085
Stddev	8.302	.15	15.6	.00259	.00208	1.26	.00020
%RSD	18.592	.09035	.21505	196.95	14.274	.42576	1.8442

#1	45.656	167.03	-7269.7	.00430	.01548	297.89	.01078
#2	35.895	166.77	-7238.5	-.00027	.01218	297.43	.01069
#3	52.408	166.78	-7252.8	-.00009	.01602	295.51	.01107

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-.00400	-.00400	-.00400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.28882	.30258	.02539	.50458	.95144	.12633
Stddev	.00136	.00150	.00157	.00289	.00075	.00035
%RSD	.47064	.49465	6.1687	.57367	.07857	.27735

#1	.28761	.30329	.02378	.50792	.95150	.12663
#2	.28856	.30086	.02548	.50285	.95066	.12594
#3	.29029	.30360	.02691	.50296	.95215	.12640

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	27491.	44086.
Stddev	76.	137.
%RSD	.27613	.31038

#1	27415.	44179.
#2	27489.	44150.
#3	27567.	43929.



Approved: October 21, 2011

Emin D. Long

Sample Name: L1110053401 Acquired: 10/20/2011 12:43:25 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01328	175.62	.42456	.18287	1.4686	.01309	417.81
Stddev	.00037	.62	.00075	.00330	.0057	.00002	8.26
%RSD	2.7846	.35524	.17703	1.8039	.38916	.16912	1.9768

#1	.01363	175.02	.42498	.18124	1.4647	.01311	409.84
#2	.01289	176.26	.42369	.18069	1.4660	.01307	426.33
#3	.01331	175.57	.42500	.18666	1.4752	.01311	417.25

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01334	.13833	.52566	1.0189	310.58	38.010	.31429
Stddev	.00002	.00039	.00166	.0019	3.46	.141	.00154
%RSD	.15443	.28153	.31522	.18788	1.1147	.36974	.48868

#1	.01333	.13816	.52593	1.0196	309.97	37.933	.31259
#2	.01337	.13878	.52388	1.0204	307.47	38.172	.31558
#3	.01333	.13806	.52716	1.0167	314.31	37.924	.31470

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	153.40	5.7010	.01671	1.6935	.39382	11.507	2.7850
Stddev	1.19	.0264	.00018	.0039	.00197	.022	.0057
%RSD	.77256	.46369	1.1065	.22841	.50086	.18794	.20551

#1	152.04	5.6718	.01667	1.6894	.39382	11.526	2.7916
#2	153.99	5.7233	.01655	1.6941	.39579	11.512	2.7825
#3	154.18	5.7079	.01691	1.6970	.39184	11.484	2.7810

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011

Emin D. Long

Sample Name: L1110053401 Acquired: 10/20/2011 12:43:25 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 31.851	F 929.26	F -29242.	.00968	.02538	F 147.64	.14449
Stddev	8.800	1.31	54.	.00160	.00210	.43	.00033
%RSD	27.630	.14112	.18485	16.510	8.2788	.28945	.22854

#1	41.861	929.91	-29304.	.00832	.02712	147.26	.14476
#2	25.330	930.13	-29204.	.01144	.02304	147.56	.14459
#3	28.361	927.76	-29218.	.00929	.02598	148.11	.14412

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-.00400	-.00400	-.00400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.89276	1.4947	.02063	.70822	3.0713	.09181
Stddev	.00472	.0044	.00105	.00160	.0021	.00042
%RSD	.52898	.29277	5.1125	.22534	.06920	.45939

#1	.89352	1.4916	.02099	.70675	3.0705	.09147
#2	.89706	1.4997	.01944	.70799	3.0737	.09167
#3	.88771	1.4927	.02145	.70992	3.0698	.09228

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	27162.	44820.
Stddev	21.	457.
%RSD	.07596	1.0207

#1	27186.	45339.
#2	27147.	44640.
#3	27154.	44479.



Approved: October 21, 2011

Emin D. Long

Sample Name: CCV Acquired: 10/20/2011 12:46:54 Type: QC
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.39469	9.8995	.39425	.49279	.96024	.04877	9.7622
Stddev	.00068	.0408	.00304	.00211	.00375	.00016	.0285
%RSD	.17292	.41197	.76988	.42850	.39043	.32288	.29191

#1	.39409	9.9361	.39093	.49155	.96270	.04875	9.7837
#2	.39543	9.9068	.39492	.49158	.95592	.04863	9.7730
#3	.39454	9.8555	.39689	.49522	.96209	.04894	9.7299

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 Value
 Range

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04926	.19992	.49435	.49763	3.9342	49.007	.96739
Stddev	.00019	.00019	.00141	.00041	.0198	.214	.00188
%RSD	.38929	.09718	.28528	.08209	.50277	.43580	.19398

#1	.04939	.20007	.49284	.49787	3.9568	49.065	.96955
#2	.04904	.19970	.49456	.49716	3.9201	49.186	.96642
#3	.04934	.19998	.49564	.49787	3.9255	48.771	.96620

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 Value
 Range

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.111	.49619	.98932	48.447	.50020	9.9065	.50243
Stddev	.062	.00147	.00158	.194	.00051	.0049	.00103
%RSD	.61483	.29572	.15986	.40139	.10150	.04892	.20508

#1	10.143	.49755	.99068	48.642	.49962	9.9009	.50261
#2	10.151	.49639	.98759	48.444	.50039	9.9092	.50132
#3	10.040	.49463	.98971	48.254	.50057	9.9094	.50336

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 Value
 Range



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: CCV Acquired: 10/20/2011 12:46:54 Type: QC
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 8.3154	10.133	F 14.210	1.1842	.39032	F 6.8087	1.0051
Stddev	6.4717	.061	2.022	.0063	.00227	.1289	.0016
%RSD	77.827	.59996	14.228	.53061	.58065	1.8934	.15582

#1	1.2352	10.190	12.015	1.1829	.38954	6.8524	1.0046
#2	13.926	10.139	15.997	1.1786	.38855	6.9102	1.0037
#3	9.7855	10.069	14.617	1.1910	.39288	6.6637	1.0068

Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
Value	10.000		10.000			5.0000	
Range	-10.000%		10.000%			10.000%	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.97947	.98007	.50426	.98889	.99765	.99461
Stddev	.00416	.00379	.00248	.00056	.00095	.00491
%RSD	.42451	.38689	.49229	.05692	.09557	.49367

#1	.97788	.98178	.50693	.98847	.99875	.99861
#2	.98418	.98272	.50203	.98868	.99701	.99608
#3	.97633	.97573	.50380	.98953	.99720	.98913

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	27183.	40609.
Stddev	66.	96.
%RSD	.24158	.23618

#1	27230.	40593.
#2	27211.	40523.
#3	27108.	40713.



Approved: October 21, 2011
<i>Erin D. Long</i>

Sample Name: CCB Acquired: 10/20/2011 12:50:03 Type: Blank
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00044	-.00300	.00064	-.00152	-.00005	-.00001	-.01328
Stddev	.00019	.00815	.00063	.00078	.00005	.00002	.00350
%RSD	44.319	271.92	97.876	51.488	94.426	165.91	26.349

#1	.00031	-.00924	.00017	-.00225	-.00007	.00000	-.00935
#2	.00066	.00622	.00040	-.00069	-.00009	.00000	-.01605
#3	.00035	-.00598	.00135	-.00161	.00000	-.00003	-.01444

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00010	-.00025	-.00027	-.00072	-.00003	-.09401	-.00144
Stddev	.00005	.00002	.00012	.00025	.00146	.02439	.00083
%RSD	55.852	9.2716	45.298	34.936	4320.4	25.939	57.991

#1	-.00007	-.00023	-.00019	-.00047	-.00170	-.12121	-.00142
#2	-.00016	-.00024	-.00020	-.00072	.00053	-.08672	-.00061
#3	-.00006	-.00028	-.00041	-.00097	.00106	-.07410	-.00228

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00770	-.00018	-.00168	-.02117	-.00110	-.00845	-.00146
Stddev	.01159	.00017	.00005	.00873	.00019	.00245	.00058
%RSD	150.49	94.156	3.0062	41.266	16.868	29.041	39.994

#1	.00365	-.00004	-.00172	-.01446	-.00120	-.00967	-.00188
#2	-.01952	-.00013	-.00170	-.01800	-.00121	-.01005	-.00170
#3	-.00723	-.00038	-.00162	-.03104	-.00088	-.00562	-.00079

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: CCB Acquired: 10/20/2011 12:50:03 Type: Blank
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 2.4522	F -.08201	F .10089	-.00254	-.00270	-.45415	-.00255
Stddev	2.8825	.02393	1.9374	.00003	.00010	.10980	.00031
%RSD	117.54	29.180	1920.3	1.3307	3.6972	24.176	12.178

#1	1.6584	-.10874	1.9473	-.00258	-.00282	-.33413	-.00287
#2	.04988	-.06258	.27158	-.00252	-.00267	-.54954	-.00253
#3	5.6484	-.07472	-1.9162	-.00252	-.00262	-.47877	-.00225

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.01000	.01000	.01000				
Low Limit	-.01000	-.01000	-.01000				

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00020	-.00014	-.00036	-.00011	-.00174	.00482
Stddev	.00005	.00080	.00051	.00025	.00006	.00072
%RSD	23.738	565.69	140.08	229.76	3.6189	14.859

#1	-.00024	.00044	.00018	-.00039	-.00178	.00411
#2	-.00015	-.00105	-.00045	-.00002	-.00167	.00483
#3	-.00021	.00019	-.00083	.00008	-.00178	.00554

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	27257.	40405.
Stddev	114.	75.
%RSD	.41878	.18519

#1	27270.	40319.
#2	27364.	40448.
#3	27137.	40449.



Approved: October 21, 2011
Emin D. Long

Sample Name: L1110053402 Acquired: 10/20/2011 12:53:33 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01578	211.02	.36035	.23972	1.6035	.01470	525.63
Stddev	.00022	.28	.00233	.00084	.0095	.00003	.77
%RSD	1.4168	.13071	.64662	.34980	.59184	.19213	.14561

#1	.01603	210.71	.36271	.23965	1.6140	.01469	524.75
#2	.01565	211.16	.36030	.23892	1.6010	.01473	525.99
#3	.01565	211.20	.35805	.24059	1.5955	.01468	526.15

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01414	.15213	.60788	.86537	336.99	47.971	.36050
Stddev	.00006	.00011	.00267	.00177	1.85	.033	.00139
%RSD	.43060	.07150	.43911	.20434	.54980	.06872	.38466

#1	.01407	.15201	.60768	.86528	336.22	47.947	.36101
#2	.01418	.15215	.61064	.86719	335.64	48.008	.36155
#3	.01416	.15222	.60531	.86366	339.10	47.957	.35893

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	184.03	6.5597	.01665	2.0617	.44580	10.617	2.9302
Stddev	.91	.0155	.00023	.0075	.00045	.023	.0054
%RSD	.49461	.23619	1.3622	.36186	.10066	.21458	.18499

#1	183.05	6.5492	.01639	2.0652	.44533	10.596	2.9262
#2	184.84	6.5775	.01678	2.0668	.44623	10.612	2.9364
#3	184.20	6.5523	.01679	2.0531	.44585	10.641	2.9280

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110053402 Acquired: 10/20/2011 12:53:33 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 30.432	F 1060.4	F -30305.	.01382	.02322	F 161.55	.15506
Stddev	5.470	2.2	10.	.00179	.00192	.62	.00119
%RSD	17.973	.20869	.03166	12.925	8.2484	.38607	.76586

#1	34.169	1057.9	-30307.	.01176	.02229	160.90	.15382
#2	32.972	1061.2	-30294.	.01496	.02542	162.15	.15619
#3	24.154	1062.1	-30313.	.01474	.02195	161.59	.15516

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-.00400	-.00400	-.00400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.90293	1.6964	.02896	.89172	3.4369	.12471
Stddev	.00122	.0019	.00065	.00078	.0118	.00056
%RSD	.13531	.11115	2.2338	.08732	.34201	.45244

#1	.90174	1.6958	.02971	.89142	3.4241	.12429
#2	.90285	1.6985	.02858	.89260	3.4472	.12449
#3	.90418	1.6948	.02860	.89114	3.4393	.12535

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	27040.	44529.
Stddev	62.	202.
%RSD	.22841	.45326

#1	27025.	44689.
#2	26988.	44302.
#3	27108.	44595.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110053403 Acquired: 10/20/2011 12:56:58 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01319	184.62	.33052	.13954	1.5475	.01357	654.55
Stddev	.00019	.50	.00174	.00099	.0045	.00005	7.68
%RSD	1.4443	.26889	.52676	.71023	.29181	.39172	1.1733

#1	.01325	184.23	.33130	.13933	1.5522	.01355	646.77
#2	.01298	185.18	.33174	.14062	1.5469	.01363	662.12
#3	.01335	184.44	.32853	.13868	1.5433	.01352	654.76

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.86475	.14123	.62882	.78347	318.12	31.256	.34978
Stddev	.00409	.00058	.00193	.00354	1.58	.050	.00046
%RSD	.47339	.41117	.30697	.45237	.49722	.15891	.13110

#1	.86735	.14154	.62733	.78683	317.50	31.214	.35029
#2	.86688	.14160	.63100	.78380	316.94	31.311	.34966
#3	.86004	.14057	.62813	.77977	319.92	31.244	.34940

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	201.98	6.3411	.01447	1.8902	.37861	9.5553	4.4206
Stddev	.77	.0182	.00019	.0090	.00134	.0327	.0137
%RSD	.37889	.28689	1.3167	.47428	.35484	.34269	.31002

#1	201.44	6.3309	.01449	1.8950	.37990	9.5859	4.4346
#2	202.85	6.3621	.01465	1.8957	.37872	9.5591	4.4198
#3	201.64	6.3303	.01427	1.8798	.37721	9.5208	4.4073

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011

Emin D. Long

Sample Name: L1110053403 Acquired: 10/20/2011 12:56:58 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 29.663	F 963.44	F -18687.	.00595	.02501	F 196.34	.16291
Stddev	2.545	2.65	57.	.00295	.00135	1.65	.00109
%RSD	8.5805	.27499	.30652	49.546	5.3956	.83835	.67178

#1	27.732	965.94	-18750.	.00256	.02381	197.25	.16329
#2	28.710	963.72	-18672.	.00740	.02476	197.34	.16377
#3	32.547	960.66	-18638.	.00790	.02647	194.44	.16168

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-0.0400	-0.0400	-0.0400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0732	1.4454	.02159	.64321	F 150.17	.13858
Stddev	.0031	.0040	.00161	.00458	.72	.00091
%RSD	.28737	.27873	7.4786	.71154	.47867	.65884

#1	1.0712	1.4434	.01987	.64223	149.37	.13857
#2	1.0767	1.4500	.02184	.64819	150.78	.13950
#3	1.0716	1.4427	.02307	.63920	150.34	.13767

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit					45.000	
Low Limit					-0.01000	

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	26437.	44456.
Stddev	50.	168.
%RSD	.18796	.37875

#1	26437.	44385.
#2	26387.	44335.
#3	26487.	44649.



Approved: October 21, 2011

Emin D. Long

Sample Name: L1110053404 Acquired: 10/20/2011 13:00:31 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01355	88.796	1.1309	.15112	1.1279	.01014	F 1180.3
Stddev	.00029	.969	.0006	.00200	.0071	.00005	11.5
%RSD	2.1119	1.0910	.05401	1.3229	.62812	.45102	.97458

#1	.01382	89.866	1.1302	.15229	1.1361	.01019	1189.4
#2	.01325	87.978	1.1315	.15225	1.1241	.01011	1167.4
#3	.01360	88.544	1.1309	.14881	1.1235	.01011	1184.2

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit							900.00
Low Limit							-.10000

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01481	.09284	.27207	.56007	238.32	17.141	.22319
Stddev	.00004	.00024	.00045	.00214	2.41	.170	.00175
%RSD	.28830	.25441	.16689	.38250	1.0122	.99037	.78520

#1	.01476	.09285	.27163	.55838	241.08	17.337	.22506
#2	.01482	.09308	.27254	.56248	237.26	17.038	.22290
#3	.01484	.09260	.27206	.55934	236.62	17.048	.22159

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	153.02	3.6108	.01495	1.9934	.23002	16.260	5.8823
Stddev	.76	.0279	.00007	.0190	.00113	.045	.0228
%RSD	.49909	.77366	.43817	.95218	.49022	.27677	.38707

#1	153.81	3.6402	.01488	2.0099	.22880	16.208	5.8820
#2	152.29	3.5846	.01496	1.9975	.23103	16.287	5.9052
#3	152.95	3.6075	.01500	1.9727	.23023	16.285	5.8597

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011

Emin D. Long

Sample Name: L1110053404 Acquired: 10/20/2011 13:00:31 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 28.634	F 2046.5	F -49333.	.00740	.02527	F 213.48	.08615
Stddev	5.108	4.6	157.	.00111	.00366	.91	.00027
%RSD	17.839	.22403	.31830	14.948	14.479	.42512	.31496

#1	32.829	2042.6	-49411.	.00840	.02881	213.06	.08585
#2	22.946	2051.6	-49436.	.00621	.02548	214.52	.08638
#3	30.128	2045.4	-49152.	.00760	.02151	212.86	.08621

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-0.0400	-0.0400	-0.0400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.5068	1.8616	.01148	.35702	2.0164	.04696
Stddev	.0227	.0207	.00263	.00203	.0081	.00038
%RSD	1.5080	1.1121	22.894	.56949	.39985	.80495

#1	1.5328	1.8850	.00971	.35599	2.0099	.04671
#2	1.4910	1.8457	.01024	.35936	2.0254	.04740
#3	1.4965	1.8541	.01451	.35571	2.0140	.04679

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	25497.	44342.
Stddev	69.	306.
%RSD	.27124	.69083

#1	25503.	43989.
#2	25426.	44492.
#3	25564.	44544.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110053405 Acquired: 10/20/2011 13:03:56 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00625	170.68	.19866	.10607	1.2124	.00957	512.20
Stddev	.00051	1.22	.00115	.00186	.0070	.00003	12.96
%RSD	8.1208	.71448	.57798	1.7552	.57989	.29858	2.5307

#1	.00683	169.28	.19929	.10402	1.2064	.00955	497.49
#2	.00604	171.37	.19734	.10654	1.2107	.00955	517.20
#3	.00588	171.41	.19936	.10766	1.2201	.00960	521.92

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00550	.09789	.28838	.27302	240.88	29.091	.35876
Stddev	.00009	.00035	.00131	.00343	3.52	.233	.00246
%RSD	1.5843	.35344	.45434	1.2574	1.4630	.80197	.68667

#1	.00541	.09812	.28939	.27686	237.02	28.824	.35656
#2	.00552	.09749	.28690	.27195	241.69	29.189	.35830
#3	.00558	.09805	.28885	.27025	243.93	29.259	.36142

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	208.03	3.4229	.00852	1.5582	.22803	7.9189	.61030
Stddev	2.20	.0260	.00012	.0098	.00113	.0326	.00365
%RSD	1.0572	.75877	1.4208	.62805	.49388	.41169	.59782

#1	205.49	3.3930	.00839	1.5480	.22784	7.9542	.61451
#2	209.27	3.4352	.00862	1.5675	.22702	7.8899	.60832
#3	209.34	3.4403	.00855	1.5590	.22925	7.9126	.60807

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011

Emin D. Long

Sample Name: L1110053405 Acquired: 10/20/2011 13:03:56 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 33.000	F 688.20	F -11035.	.00296	.01309	F 229.85	.04502
Stddev	7.567	2.05	12.	.00100	.00391	.92	.00041
%RSD	22.931	.29741	.10485	33.700	29.841	.39816	.91372

#1	32.130	689.16	-11045.	.00259	.01647	230.30	.04456
#2	25.906	685.85	-11022.	.00220	.01398	228.79	.04515
#3	40.965	689.59	-11038.	.00409	.00881	230.45	.04536

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-.00400	-.00400	-.00400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.73760	.92846	.00654	.35225	1.3299	.14336
Stddev	.00335	.00688	.00189	.00156	.0058	.00047
%RSD	.45442	.74071	28.873	.44173	.43432	.32929

#1	.73373	.92053	.00447	.35229	1.3364	.14313
#2	.73936	.93209	.00816	.35067	1.3276	.14305
#3	.73970	.93276	.00700	.35378	1.3256	.14391

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	26567.	46296.
Stddev	108.	226.
%RSD	.40575	.48826

#1	26616.	46551.
#2	26642.	46122.
#3	26444.	46214.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110053406 Acquired: 10/20/2011 13:07:23 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01445	215.17	.17903	.17657	1.6610	.01437	539.56
Stddev	.00033	.41	.00285	.00391	.0043	.00009	5.72
%RSD	2.2569	.19143	1.5922	2.2143	.25903	.59733	1.0605

#1	.01475	214.90	.17615	.17930	1.6561	.01440	534.58
#2	.01451	215.64	.18185	.17832	1.6642	.01443	545.81
#3	.01410	214.96	.17910	.17209	1.6626	.01427	538.30

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.09077	.15092	9.5200	.77164	314.28	39.652	.37830
Stddev	.00019	.00044	.0439	.00380	5.94	.192	.00133
%RSD	.21198	.29359	.46123	.49253	1.8890	.48410	.35079

#1	.09090	.15117	9.5227	.77572	314.18	39.531	.37677
#2	.09086	.15118	9.5625	.77101	320.26	39.874	.37900
#3	.09055	.15041	9.4748	.76819	308.39	39.552	.37914

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	163.80	5.2081	.01144	1.9755	.34264	9.1186	2.9885
Stddev	1.09	.0170	.00018	.0142	.00081	.0145	.0236
%RSD	.66600	.32594	1.5831	.72047	.23518	.15907	.78877

#1	163.01	5.1973	.01159	1.9625	.34181	9.1039	3.0142
#2	165.04	5.2277	.01124	1.9907	.34267	9.1190	2.9831
#3	163.34	5.1995	.01148	1.9731	.34342	9.1329	2.9680

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011

Emin D. Long

Sample Name: L1110053406 Acquired: 10/20/2011 13:07:23 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 41.032	F 776.86	F -14648.	.01156	.01932	F 148.31	.70541
Stddev	19.534	1.16	114.	.00316	.00023	.83	.00200
%RSD	47.608	.14947	.77489	27.346	1.1995	.56011	.28340

#1	18.508	777.83	-14770.	.01101	.01950	147.36	.70316
#2	53.336	777.16	-14629.	.00871	.01940	148.90	.70606
#3	51.253	775.57	-14545.	.01495	.01906	148.67	.70700

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-.00400	-.00400	-.00400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0978	2.0724	.01390	.45768	10.405	.16304
Stddev	.0016	.0050	.00081	.00252	.068	.00114
%RSD	.14755	.23873	5.8591	.55046	.65760	.69964

#1	1.0978	2.0684	.01390	.45941	10.466	.16351
#2	1.0994	2.0779	.01309	.45885	10.419	.16387
#3	1.0962	2.0707	.01472	.45479	10.331	.16174

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	26626.	46081.
Stddev	110.	365.
%RSD	.41425	.79268

#1	26511.	46035.
#2	26637.	45740.
#3	26731.	46466.



Approved: October 21, 2011

Emin D. Long

Sample Name: L1110053407 Acquired: 10/20/2011 13:10:47 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01339	257.33	.35245	.21309	1.9087	.01576	490.47
Stddev	.00066	1.47	.00221	.00097	.0032	.00008	4.28
%RSD	4.9258	.56988	.62599	.45692	.16716	.49613	.87284

#1	.01267	256.76	.35322	.21291	1.9068	.01580	493.35
#2	.01353	256.24	.34996	.21222	1.9069	.01581	485.55
#3	.01397	259.00	.35417	.21414	1.9123	.01567	492.51

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01499	.17008	.50782	.69647	424.85	50.906	.40580
Stddev	.00003	.00069	.00246	.00183	1.13	.322	.00103
%RSD	.18135	.40325	.48354	.26284	.26641	.63301	.25334

#1	.01496	.16939	.51004	.69455	424.40	50.871	.40487
#2	.01501	.17008	.50823	.69819	424.02	50.602	.40562
#3	.01499	.17076	.50518	.69667	426.14	51.244	.40690

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	182.79	6.8863	.01168	2.1506	.40603	9.7814	1.8742
Stddev	1.70	.0398	.00024	.0143	.00197	.0629	.0053
%RSD	.92776	.57837	2.0545	.66408	.48593	.64287	.28239

#1	181.78	6.8682	.01172	2.1480	.40495	9.7789	1.8685
#2	181.84	6.8587	.01142	2.1379	.40482	9.7197	1.8752
#3	184.75	6.9320	.01190	2.1661	.40830	9.8454	1.8789

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011

Emin D. Long

Sample Name: L1110053407 Acquired: 10/20/2011 13:10:47 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 45.612	F 738.86	F -14886.	.00732	.01535	F 148.37	.20328
Stddev	11.245	2.26	70.	.00122	.00297	.96	.00067
%RSD	24.655	.30622	.47006	16.648	19.371	.64460	.33182

#1	43.356	737.42	-14805.	.00614	.01865	147.79	.20314
#2	35.665	737.69	-14921.	.00724	.01452	147.85	.20268
#3	57.814	741.47	-14932.	.00857	.01288	149.48	.20401

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-.00400	-.00400	-.00400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.87419	1.7774	.02156	.57355	3.3788	.19215
Stddev	.00369	.0080	.00087	.00327	.0089	.00072
%RSD	.42260	.44744	4.0128	.56982	.26236	.37261

#1	.87454	1.7766	.02056	.57450	3.3686	.19255
#2	.87033	1.7699	.02205	.57624	3.3829	.19259
#3	.87769	1.7857	.02207	.56991	3.3849	.19133

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	27254.	45923.
Stddev	130.	374.
%RSD	.47534	.81538

#1	27179.	46112.
#2	27178.	46165.
#3	27403.	45492.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110053408 Acquired: 10/20/2011 13:14:11 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01202	264.80	.22123	.18611	1.9178	.01627	575.90
Stddev	.00075	1.10	.00106	.00131	.0108	.00009	2.52
%RSD	6.2586	.41586	.47701	.70626	.56436	.58258	.43721

#1	.01126	265.06	.22087	.18540	1.9110	.01624	573.10
#2	.01277	263.59	.22242	.18531	1.9120	.01620	576.62
#3	.01203	265.75	.22041	.18763	1.9302	.01638	577.97

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.06247	.19713	.49034	.58076	397.05	46.325	.47354
Stddev	.00020	.00051	.00397	.00054	2.89	.181	.00275
%RSD	.32268	.25844	.81042	.09282	.72691	.39078	.58151

#1	.06227	.19674	.48773	.58096	399.52	46.304	.47144
#2	.06267	.19694	.48839	.58118	393.88	46.155	.47252
#3	.06247	.19770	.49492	.58015	397.74	46.516	.47665

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	193.24	8.8268	.01782	2.0534	.44468	10.292	1.3901
Stddev	.91	.0394	.00022	.0106	.00102	.023	.0029
%RSD	.46905	.44621	1.2583	.51628	.22979	.22681	.21004

#1	193.56	8.8331	.01808	2.0425	.44394	10.317	1.3889
#2	192.22	8.7846	.01768	2.0539	.44425	10.271	1.3934
#3	193.95	8.8627	.01770	2.0637	.44584	10.287	1.3879

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011

Emin D. Long

Sample Name: L1110053408 Acquired: 10/20/2011 13:14:11 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 37.721	F 764.90	F -11482.	.00406	.01772	F 155.37	.18438
Stddev	4.467	.99	13.	.00393	.00057	.17	.00060
%RSD	11.842	.12879	.11696	96.793	3.2429	.11094	.32503

#1	34.056	765.01	-11472.	.00781	.01778	155.40	.18423
#2	42.697	763.86	-11478.	-.00002	.01712	155.53	.18505
#3	36.410	765.82	-11497.	.00438	.01826	155.19	.18388

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-.00400	-.00400	-.00400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.2679	1.5756	.02002	.56983	6.0599	.24090
Stddev	.0069	.0090	.00280	.00448	.0098	.00225
%RSD	.54366	.57376	13.977	.78659	.16257	.93255

#1	1.2692	1.5739	.02242	.56674	6.0688	.23988
#2	1.2605	1.5675	.02070	.56777	6.0617	.23934
#3	1.2741	1.5853	.01695	.57497	6.0493	.24347

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	27405.	46087.
Stddev	145.	195.
%RSD	.52846	.42346

#1	27517.	45897.
#2	27458.	46287.
#3	27242.	46079.



Approved: October 21, 2011

Emin D. Long

Sample Name: L1110049036 Acquired: 10/20/2011 13:17:35 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: 2 Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00230	128.66	.07764	.02611	.97235	.00940	11.485
Stddev	.00012	.43	.00044	.00348	.00152	.00005	.022
%RSD	5.0427	.33324	.56714	13.322	.15641	.48859	.19370

#1	.00235	128.91	.07745	.02903	.97408	.00944	11.504
#2	.00216	128.90	.07732	.02703	.97123	.00941	11.489
#3	.00238	128.16	.07814	.02226	.97173	.00935	11.461

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F -.00083	.15877	.16625	.13187	268.05	7.1894	.10424
Stddev	.00006	.00078	.00026	.00164	3.69	.0536	.00134
%RSD	7.3137	.48816	.15766	1.2419	1.3783	.74532	1.2810

#1	-.00086	.15815	.16598	.12999	271.59	7.2501	.10418
#2	-.00086	.15851	.16626	.13291	268.34	7.1696	.10294
#3	-.00076	.15964	.16650	.13272	264.22	7.1486	.10561

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	16.200						
Low Limit	-.00050						

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	17.803	11.422	.00165	1.8453	.18659	1.4608	.17037
Stddev	.264	.071	.00022	.0143	.00065	.0156	.00187
%RSD	1.4803	.61810	13.333	.77525	.34653	1.0657	1.0991

#1	18.081	11.488	.00185	1.8602	.18588	1.4484	.17189
#2	17.771	11.431	.00142	1.8440	.18714	1.4558	.16828
#3	17.557	11.348	.00168	1.8317	.18674	1.4783	.17095

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110049036 Acquired: 10/20/2011 13:17:35 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: 2 Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 31.251	F 68.778	F -3069.8	-0.0182	.00961	F 122.87	.00355
Stddev	5.965	.305	24.2	.00217	.00188	.71	.00030
%RSD	19.088	.44369	.78809	119.18	19.549	.58156	8.5814

#1	34.803	68.473	-3045.8	-.00156	.01174	122.60	.00360
#2	24.364	68.777	-3069.5	.00021	.00818	123.68	.00383
#3	34.585	69.083	-3094.2	-.00412	.00892	122.33	.00323

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-.00400	-.00400	-.00400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.11754	.07603	.01494	.22083	.31503	.05809
Stddev	.00011	.00077	.00159	.00072	.00075	.00040
%RSD	.09178	1.0118	10.652	.32380	.23857	.69674

#1	.11753	.07518	.01335	.22116	.31578	.05827
#2	.11743	.07667	.01492	.22131	.31504	.05838
#3	.11765	.07625	.01653	.22001	.31428	.05763

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	27836.	44996.
Stddev	60.	482.
%RSD	.21400	1.0720

#1	27776.	44444.
#2	27835.	45204.
#3	27895.	45339.



Approved: October 21, 2011

Emin D. Long

Sample Name: ICSA Acquired: 10/20/2011 13:20:56 Type: QC
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00102	248.42	-.00250	.00493	.00005	.00001	246.76
Stddev	.00034	.32	.00110	.00066	.00013	.00000	.65
%RSD	33.811	.12750	44.128	13.383	243.19	31.753	.26428

#1	.00141	248.70	-.00346	.00568	.00005	.00000	247.20
#2	.00087	248.48	-.00275	.00464	.00019	.00001	246.01
#3	.00077	248.07	-.00129	.00446	-.00007	.00000	247.07

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00025	-.00016	-.00012	F .00772	91.237	-.16401	.00427
Stddev	.00010	.00002	.00015	.00016	.205	.01482	.00038
%RSD	39.220	13.951	127.87	2.0528	.22450	9.0356	8.9310

#1	.00037	-.00014	-.00006	.00766	91.369	-.16555	.00442
#2	.00022	-.00017	-.00001	.00760	91.001	-.17800	.00457
#3	.00018	-.00018	-.00029	.00790	91.341	-.14848	.00384

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit				.00500			
Low Limit				-.00500			

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	242.56	-.00107	-.00272	-.00281	-.00014	-.09337	.00021
Stddev	.53	.00010	.00022	.00523	.00043	.00220	.00103
%RSD	.21867	9.3562	8.1113	185.90	307.32	2.3557	493.30

#1	243.14	-.00095	-.00261	.00149	.00036	-.09234	.00084
#2	242.43	-.00113	-.00257	-.00864	-.00037	-.09589	.00077
#3	242.11	-.00112	-.00297	-.00129	-.00041	-.09187	-.00098

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011

Emin D. Long

Sample Name: ICSA Acquired: 10/20/2011 13:20:56 Type: QC
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 13.709	F 237.55	F 28.195	-0.00969	-0.00234	-0.08157	.00098
Stddev	4.015	.99	5.699	.00065	.00386	.06322	.00037
%RSD	29.285	.41503	20.214	6.7207	164.54	77.503	37.402

#1	15.611	236.68	28.951	-.01001	.00211	-.02966	.00092
#2	16.419	238.62	33.479	-.01013	-.00467	-.06309	.00138
#3	9.0967	237.35	22.155	-.00895	-.00447	-.15198	.00065

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.04000	.04000	.04000				
Low Limit	-.04000	-.04000	-.04000				

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00374	-0.00405	.00201	.00104	.00070	.00015
Stddev	.00018	.00017	.00095	.00030	.00005	.00006
%RSD	4.6983	4.1413	47.016	28.483	7.1560	42.281

#1	.00374	-.00399	.00247	.00094	.00066	.00018
#2	.00392	-.00424	.00093	.00137	.00075	.00019
#3	.00357	-.00392	.00265	.00080	.00068	.00008

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	25407.	43393.
Stddev	65.	19.
%RSD	.25586	.04414

#1	25482.	43407.
#2	25369.	43400.
#3	25370.	43371.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: ICSAB Acquired: 10/20/2011 13:24:15 Type: QC
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50828	250.88	.25373	.00431	.23896	.24741	249.49
Stddev	.00173	2.16	.00173	.00040	.00130	.00054	1.79
%RSD	.34121	.86168	.68236	9.3328	.54439	.22011	.71767
#1	.50969	248.50	.25557	.00386	.23746	.24799	247.45
#2	.50634	251.41	.25213	.00441	.23957	.24691	250.23
#3	.50879	252.72	.25351	.00465	.23984	.24732	250.79

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49234	.23927	.24077	.25144	91.866	4.9297	.00529
Stddev	.00063	.00038	.00186	.00092	.434	.0633	.00103
%RSD	.12840	.16003	.77298	.36568	.47287	1.2847	19.395
#1	.49301	.23932	.24241	.25222	91.370	4.8737	.00519
#2	.49176	.23887	.23875	.25042	92.178	4.9169	.00431
#3	.49226	.23963	.24114	.25166	92.051	4.9984	.00636

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	244.94	.23438	-.00259	5.1023	.48701	-.09371	.47048
Stddev	1.72	.00142	.00011	.0408	.00092	.00300	.00215
%RSD	.70148	.60524	4.4104	.79935	.18915	3.1980	.45726
#1	243.02	.23276	-.00247	5.0587	.48707	-.09716	.47074
#2	245.47	.23494	-.00270	5.1085	.48790	-.09177	.47250
#3	246.33	.23543	-.00260	5.1396	.48606	-.09220	.46822

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 High Limit
 Low Limit



Approved: October 21, 2011
Emin D. Long

Sample Name: ICSAB Acquired: 10/20/2011 13:24:15 Type: QC
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 27.427	F 238.72	F 28.901	.50663	.25524	.25299	-.00208
Stddev	5.585	.57	2.485	.00028	.00103	.19877	.00028
%RSD	20.363	.23811	8.5979	.05614	.40173	78.568	13.249

#1	21.034	238.41	31.701	.50649	.25408	.09650	-.00187
#2	29.891	238.37	26.958	.50644	.25605	.47664	-.00239
#3	31.357	239.37	28.044	.50695	.25559	.18584	-.00198

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.60000	.60000	.60000				
Low Limit	.40000	.40000	.40000				

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00350	-.00246	.45278	.25330	.46881	-.00017
Stddev	.00010	.00089	.00279	.00083	.00057	.00010
%RSD	2.8592	36.274	.61690	.32853	.12231	58.151

#1	.00339	-.00148	.45300	.25398	.46896	-.00027
#2	.00353	-.00323	.44989	.25237	.46817	-.00016
#3	.00358	-.00267	.45546	.25356	.46928	-.00008

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	25520.	43054.
Stddev	49.	13.
%RSD	.19381	.03075

#1	25467.	43068.
#2	25528.	43042.
#3	25565.	43053.



Approved: October 21, 2011
<i>Erin D. Long</i>

Sample Name: CCV Acquired: 10/20/2011 13:27:34 Type: QC
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.40224	9.8556	.40571	.51494	.97949	.04991	9.8231
Stddev	.00070	.0107	.00089	.00060	.00297	.00017	.0132
%RSD	.17475	.10892	.21962	.11699	.30370	.33772	.13420

#1	.40190	9.8445	.40484	.51445	.97694	.04991	9.8231
#2	.40177	9.8564	.40662	.51476	.97878	.04974	9.8099
#3	.40305	9.8660	.40567	.51561	.98276	.05008	9.8363

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05009	.20186	.49533	.50620	3.8354	50.017	.98739
Stddev	.00023	.00081	.00249	.00194	.0240	.125	.00219
%RSD	.46077	.39951	.50304	.38378	.62531	.25047	.22222

#1	.04985	.20094	.49445	.50396	3.8220	50.045	.98690
#2	.05031	.20218	.49339	.50737	3.8212	49.880	.98549
#3	.05010	.20245	.49814	.50727	3.8631	50.126	.98979

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.8683	.49021	.99837	49.684	.51309	10.253	.49789
Stddev	.0581	.00164	.00390	.232	.00288	.061	.00265
%RSD	.58915	.33502	.39084	.46652	.56160	.59190	.53191

#1	9.8443	.49039	.99396	49.696	.51090	10.186	.49484
#2	9.8261	.48848	.99975	49.447	.51202	10.267	.49945
#3	9.9346	.49175	1.0014	49.910	.51636	10.305	.49940

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value Range							



Approved: October 21, 2011
<i>Emin D. Jong</i>

Sample Name: CCV Acquired: 10/20/2011 13:27:34 Type: QC
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.401	10.197	F 17.698	1.2256	.39942	F 5.9931	1.0304
Stddev	10.999	.099	2.325	.0074	.00063	.1742	.0054
%RSD	105.75	.97568	13.134	.60575	.15763	2.9072	.52452

#1	18.907	10.123	15.385	1.2187	.39983	5.8015	1.0248
#2	-2.0200	10.157	17.675	1.2247	.39870	6.0359	1.0308
#3	14.317	10.310	20.034	1.2334	.39974	6.1420	1.0356

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
Value			10.000			5.0000	
Range			10.000%			10.000%	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0137	.99771	.51391	1.0132	.98795	1.0402
Stddev	.0013	.00372	.00352	.0024	.00745	.0031
%RSD	.12371	.37250	.68403	.23415	.75373	.29408

#1	1.0150	.99752	.51015	1.0131	.97941	1.0433
#2	1.0125	.99409	.51711	1.0109	.99135	1.0372
#3	1.0138	1.0015	.51446	1.0157	.99308	1.0403

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	27109.	42978.
Stddev	83.	297.
%RSD	.30695	.69153

#1	27040.	43207.
#2	27085.	43084.
#3	27202.	42642.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: CCB Acquired: 10/20/2011 13:30:44 Type: Blank
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00034	-0.00211	.00076	-0.00028	-0.00034	.00000	-0.01031
Stddev	.00013	.00524	.00048	.00040	.00017	.0000	.00790
%RSD	38.218	247.86	63.518	143.55	50.963	517.34	76.650

#1	.00041	.00386	.00131	-0.00010	-0.00014	.00000	-.01911
#2	.00019	-.00429	.00057	-0.00074	-0.00041	-.00003	-.00381
#3	.00042	-.00591	.00040	.00000	-0.00046	.00002	-.00801

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00008	-0.00032	-0.00026	-0.00092	-0.00178	-0.13508	-0.00238
Stddev	.00005	.00007	.00005	.00036	.00062	.01523	.00220
%RSD	60.117	23.074	19.539	39.755	35.047	11.272	92.317

#1	-0.00003	-0.00039	-0.00021	-0.00125	-0.00230	-.12575	-0.00194
#2	-0.00007	-0.00031	-0.00031	-0.00097	-0.00197	-.15265	-0.00476
#3	-0.00013	-0.00025	-0.00026	-0.00053	-0.00109	-.12684	-0.00043

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00471	-0.00018	-0.00176	-0.00929	-0.00111	-0.00859	-0.00075
Stddev	.00102	.00004	.00012	.00534	.00040	.00280	.00170
%RSD	21.598	22.903	6.8667	57.478	36.331	32.595	226.98

#1	.00589	-0.00015	-0.00180	-0.00421	-0.00102	-0.00536	-0.00263
#2	.00412	-0.00016	-0.00185	-0.00880	-0.00156	-0.01024	-0.00029
#3	.00413	-0.00023	-0.00162	-0.01486	-0.00076	-0.01017	.00067

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: CCB Acquired: 10/20/2011 13:30:44 Type: Blank
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 12.209	F -.12562	F 7.0194	-.00348	-.00451	-.39783	-.00255
Stddev	5.518	.02141	2.9386	.00114	.00154	.13987	.00011
%RSD	45.197	17.043	41.864	32.618	34.163	35.158	4.2171

#1	7.5513	-.12698	7.7591	-.00217	-.00477	-.40926	-.00267
#2	10.772	-.10357	9.5176	-.00420	-.00286	-.53164	-.00249
#3	18.303	-.14632	3.7816	-.00407	-.00590	-.25260	-.00249

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.01000	.01000	.01000				
Low Limit	-.01000	-.01000	-.01000				

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00025	.00016	.00012	-.00007	-.00169	.00452
Stddev	.00005	.00025	.00033	.00013	.00004	.00050
%RSD	18.307	156.34	272.18	195.60	2.3724	10.974

#1	-.00029	-.00012	-.00006	.00008	-.00164	.00403
#2	-.00026	.00034	.00051	-.00017	-.00172	.00451
#3	-.00020	.00025	-.00008	-.00011	-.00170	.00502

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	27170.	42778.
Stddev	125.	315.
%RSD	.46037	.73734

#1	27298.	42425.
#2	27165.	43034.
#3	27048.	42874.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: FE 1000 PPM Acquired: 10/20/2011 13:34:21 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00080	-0.02705	-0.00800	.04710	-0.00053	-0.00006
Stddev	.00011	.00354	.00063	.00313	.00023	.00001
%RSD	13.451	13.074	7.8203	6.6385	44.152	21.027

#1	.00092	-0.03085	-0.00808	.04416	-0.00027	-0.00006
#2	.00071	-0.02385	-0.00858	.04675	-0.00072	-0.00008
#3	.00076	-0.02645	-0.00734	.05039	-0.00059	-0.00005

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca4226	Cd2288	Co2286	Cr2677	Cu2247	Fe2611
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F -.12283	F -.00949	.01404	F -.04181	.11812	F 903.87
Stddev	.00293	.00010	.00024	.00047	.00349	2.22
%RSD	2.3856	1.0619	1.7122	1.1336	2.9566	.24600

#1	-.11957	-.00939	.01384	-.04141	.11622	902.09
#2	-.12523	-.00949	.01430	-.04233	.12215	903.16
#3	-.12371	-.00959	.01397	-.04167	.11599	906.36

Check ?	Chk Fail	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Fail
High Limit	900.00	16.200		90.000		900.00
Low Limit	-.10000	-.00050		-.00300		-.02000

Elem	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.27740	-0.00269	-0.04378	.01894	-0.00663	-0.01926
Stddev	.02317	.00051	.00177	.00053	.00017	.00503
%RSD	8.3511	19.139	4.0327	2.7830	2.4953	26.120

#1	-.26007	-.00286	-.04250	.01954	-.00682	-.01494
#2	-.26841	-.00309	-.04579	.01871	-.00659	-.02479
#3	-.30371	-.00211	-.04304	.01856	-.00650	-.01806

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						



Approved: October 21, 2011

Erin D. Long

Sample Name: FE 1000 PPM Acquired: 10/20/2011 13:34:21 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ni2316	P_2149	Pb2203	Rb7800	S_1807	S_1820
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02323	kF -54988	.01900	5.4839	.34478	3.4615
Stddev	.00071	.00368	.00029	4.2482	.04489	4.0469
%RSD	3.0714	.66924	1.5225	77.468	13.021	116.91

#1	.02335	k -54610	.01879	10.128	.32010	-1.1414
#2	.02387	k -55008	.01888	4.5305	.39660	6.4614
#3	.02246	k -55346	.01933	1.7933	.31765	5.0645

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		900.00				
Low Limit		-.00400				

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00002	-.00224	.87622	.00478	-.00042	.00091
Stddev	.00204	.00100	.01279	.00042	.00007	.00018
%RSD	8396.7	44.781	1.4600	8.8333	17.106	20.164

#1	.00221	-.00329	.88437	.00523	-.00041	.00111
#2	-.00032	-.00215	.88282	.00471	-.00050	.00076
#3	-.00182	-.00129	.86148	.00440	-.00035	.00085

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm
Avg	.00700	.01241	.01001	^ *****
Stddev	.00251	.00020	.00008	----
%RSD	35.888	1.5830	.75100	----

#1	.00982	.01262	.00992	^ ----
#2	.00500	.01224	.01006	^ ----
#3	.00618	.01238	.01004	^ ----

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				
Low Limit				



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: FE 1000 PPM Acquired: 10/20/2011 13:34:21 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	26363.	42736.
Stddev	48.	180.
%RSD	.18221	.42015
#1	26414.	42645.
#2	26319.	42619.
#3	26354.	42942.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: PB 200 PPM Acquired: 10/20/2011 13:37:48 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00050	-0.01405	-0.00024	-0.00176	-0.00045	-0.00001	-0.00372
Stddev	.00019	.01197	.00056	.00027	.00011	.00001	.00196
%RSD	38.783	85.192	231.53	15.076	23.757	211.42	52.696

#1	.00072	-.02783	.00004	-.00151	-.00053	.00000	-.00161
#2	.00044	-.00812	-.00088	-.00174	-.00048	.00000	-.00549
#3	.00034	-.00620	.00012	-.00204	-.00033	-.00002	-.00408

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00008	-0.00017	-0.00011	.48420	.05827	-.17071	-0.00475
Stddev	.00004	.00012	.00038	.00364	.00256	.02365	.00025
%RSD	48.492	71.123	351.21	.75192	4.3968	13.855	5.2246

#1	-.00004	-.00004	-.00001	.48278	.05789	-.14629	-.00453
#2	-.00008	-.00027	.00021	.48149	.05592	-.17233	-.00472
#3	-.00012	-.00020	-.00052	.48834	.06100	-.19350	-.00502

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00949	.00017	-0.00186	.00769	-0.00077	F -.00825	F 200.92
Stddev	.00849	.00026	.00012	.00394	.00035	.00249	1.95
%RSD	89.478	150.54	6.2406	51.325	45.080	30.188	.97291

#1	.00004	-.00001	-.00199	.00779	-.00099	-.00966	198.83
#2	-.01626	.00046	-.00176	.00369	-.00037	-.00538	201.24
#3	-.01224	.00005	-.00185	.01157	-.00096	-.00972	202.70

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail
High Limit						900.00	180.00
Low Limit						-.00400	-.00500



Approved: October 21, 2011
<i>Erin D. Long</i>

Sample Name: PB 200 PPM Acquired: 10/20/2011 13:37:48 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 20.839	.05409	F -19.726	-0.00300	-0.00259	-.42057	-.00354
Stddev	13.070	.02866	3.535	.00042	.00076	.04062	.00019
%RSD	62.720	52.984	17.921	14.027	29.437	9.6589	5.4467

#1	12.668	.02870	-17.481	-.00337	-.00295	-.37578	-.00345
#2	35.914	.04840	-23.801	-.00254	-.00171	-.45502	-.00376
#3	13.936	.08516	-17.896	-.00308	-.00310	-.43093	-.00340

Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000		9.0000				
Low Limit	-.00400		-.00400				

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00029	.00012	-.00456	-.00006	.00017	.00056
Stddev	.00005	.00016	.00193	.00009	.00006	.00006
%RSD	15.974	125.99	42.450	147.56	34.902	10.938

#1	-.00034	.00023	-.00669	-.00007	.00011	.00051
#2	-.00027	-.00006	-.00406	.00003	.00018	.00063
#3	-.00026	.00020	-.00292	-.00015	.00023	.00053

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	26927.	43517.
Stddev	223.	148.
%RSD	.82968	.33993

#1	27169.	43558.
#2	26882.	43352.
#3	26730.	43639.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: BLANK Acquired: 10/20/2011 13:41:21 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00056	-0.00962	.00081	-0.00192	-0.00041	-0.00001	-0.00755
Stddev	.00007	.01072	.00079	.00091	.00005	.00003	.00629
%RSD	12.499	111.38	96.857	47.264	11.438	277.96	83.354

#1	.00051	.00235	.00102	-.00213	-.00039	-.00005	-.00650
#2	.00064	-.01291	-.00006	-.00092	-.00037	.00000	-.00185
#3	.00053	-.01831	.00147	-.00270	-.00046	.00002	-.01431

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00003	-0.00029	-0.00009	-0.00091	-0.00030	-1.18018	-0.00334
Stddev	.00005	.00005	.00012	.00019	.00155	.01065	.00018
%RSD	203.64	17.807	128.15	20.917	512.15	5.9082	5.4736

#1	-.00004	-.00032	-.00001	-.00106	-.00208	-.17221	-.00354
#2	.00006	-.00023	-.00023	-.00070	.00076	-.19227	-.00329
#3	.00006	-.00033	-.00004	-.00098	.00041	-.17605	-.00318

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00010	-0.00024	-0.00199	-0.01548	-0.00078	F -0.00832	.00152
Stddev	.01283	.00017	.00012	.00617	.00040	.00059	.00038
%RSD	12893.	68.416	6.1952	39.833	51.465	7.1060	25.375

#1	-.01377	-.00039	-.00191	-.02260	-.00076	-.00896	.00156
#2	.00179	-.00027	-.00213	-.01222	-.00118	-.00779	.00188
#3	.01167	-.00006	-.00194	-.01163	-.00039	-.00821	.00111

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	



Approved: October 21, 2011
<i>Evan D. Long</i>

Sample Name: BLANK Acquired: 10/20/2011 13:41:21 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 25.382	F -.11248	5.2315	-.00377	-.00047	-.28270	-.00266
Stddev	5.414	.02718	2.7282	.00019	.00205	.07584	.00020
%RSD	21.329	24.168	52.149	5.0442	436.78	26.827	7.3672

#1	23.368	-.08729	5.8294	-.00377	-.00266	-.34518	-.00252
#2	21.264	-.14129	2.2540	-.00357	.00140	-.30459	-.00257
#3	31.514	-.10886	7.6113	-.00395	-.00014	-.19832	-.00288

Check ?	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000	9.0000					
Low Limit	-.00400	-.00400					

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00036	-.00055	-.00030	-.00023	-.00076	.00033
Stddev	.00001	.00026	.00029	.00009	.00009	.00008
%RSD	3.9304	47.798	98.578	40.120	11.382	25.136

#1	-.00037	-.00076	.00003	-.00033	-.00066	.00030
#2	-.00036	-.00026	-.00054	-.00016	-.00079	.00026
#3	-.00034	-.00062	-.00038	-.00020	-.00082	.00042

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	27170.	42775.
Stddev	195.	505.
%RSD	.71778	1.1795

#1	26967.	42432.
#2	27189.	42538.
#3	27355.	43354.



Approved: October 21, 2011

Emin D. Long

Sample Name: CCV Acquired: 10/20/2011 13:44:53 Type: QC
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.39664	9.7847	.40711	.51084	.96744	.04954	9.6993
Stddev	.00130	.0477	.00332	.00393	.00311	.00017	.0168
%RSD	.32807	.48728	.81478	.76977	.32127	.34741	.17323

#1	.39809	9.8109	.40389	.51505	.96423	.04970	9.7036
#2	.39558	9.8135	.40694	.50726	.96767	.04936	9.7136
#3	.39625	9.7297	.41052	.51020	.97043	.04956	9.6808

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 Value
 Range

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05035	.20283	.49140	.50834	3.7693	50.120	.98090
Stddev	.00017	.00098	.00078	.00130	.0076	.093	.00159
%RSD	.33995	.48311	.15871	.25549	.20181	.18584	.16217

#1	.05034	.20170	.49167	.50715	3.7632	50.068	.97979
#2	.05019	.20331	.49200	.50815	3.7668	50.227	.98019
#3	.05053	.20347	.49052	.50973	3.7778	50.064	.98273

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 Value
 Range

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.8075	.48920	1.0004	49.673	.51809	10.323	.49289
Stddev	.0133	.00047	.0023	.112	.00061	.016	.00177
%RSD	.13533	.09699	.22790	.22457	.11819	.15100	.35926

#1	9.8017	.48866	.99852	49.546	.51768	10.311	.49117
#2	9.7981	.48951	.99976	49.720	.51879	10.317	.49279
#3	9.8227	.48945	1.0029	49.754	.51780	10.341	.49471

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 Value
 Range



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: CCV Acquired: 10/20/2011 13:44:53 Type: QC
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 29.408	10.298	F 18.067	1.2378	.40207	F 5.9751	1.0354
Stddev	10.339	.068	2.347	.0045	.00143	.0671	.0034
%RSD	35.159	.65856	12.993	.36470	.35638	1.1227	.32623

#1	37.520	10.331	16.324	1.2328	.40048	6.0149	1.0315
#2	32.938	10.344	17.142	1.2389	.40249	5.8976	1.0377
#3	17.766	10.220	20.737	1.2416	.40325	6.0127	1.0371

Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
Value	10.000		10.000			5.0000	
Range	10.000%		10.000%			10.000%	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0138	.99504	.51736	1.0050	.98150	1.0334
Stddev	.0036	.00144	.00116	.0050	.00098	.0087
%RSD	.35828	.14477	.22384	.49490	.09936	.83783

#1	1.0158	.99346	.51630	1.0099	.98242	1.0433
#2	1.0161	.99628	.51860	.99995	.98048	1.0272
#3	1.0097	.99539	.51718	1.0052	.98161	1.0297

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	26795.	43173.
Stddev	64.	180.
%RSD	.23805	.41675

#1	26770.	43370.
#2	26748.	43131.
#3	26868.	43018.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: CCB Acquired: 10/20/2011 13:48:03 Type: Blank
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00025	.00204	.00044	-.00025	-.00040	.00000	-.00667
Stddev	.00026	.00968	.00040	.00054	.00002	.00001	.00845
%RSD	106.83	474.25	92.151	213.16	4.0800	1253.0	126.69

#1	.00000	.00413	.00073	-.00038	-.00038	.00001	.00190
#2	.00052	-.00851	.00061	-.00072	-.00041	-.00001	-.01500
#3	.00022	.01050	-.00002	.00034	-.00041	.00001	-.00692

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00008	-.00022	-.00011	-.00071	-.00055	-.17403	-.00285
Stddev	.00007	.00012	.00017	.00022	.00122	.00416	.00169
%RSD	98.099	53.545	147.77	31.272	224.15	2.3898	59.258

#1	-.00013	-.00031	-.00026	-.00072	-.00173	-.17442	-.00130
#2	-.00011	-.00009	.00007	-.00093	-.00063	-.17797	-.00465
#3	.00001	-.00026	-.00016	-.00049	.00072	-.16968	-.00260

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00156	-.00019	-.00175	-.01088	-.00119	-.00731	-.00147
Stddev	.00464	.00019	.00004	.00307	.00025	.00273	.00067
%RSD	297.19	99.154	2.2064	28.239	21.209	37.341	45.395

#1	-.00681	-.00003	-.00172	-.00735	-.00102	-.00808	-.00208
#2	.00010	-.00015	-.00175	-.01230	-.00148	-.00428	-.00076
#3	.00202	-.00041	-.00179	-.01298	-.00106	-.00958	-.00156

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011
<i>Evan D. Long</i>

Sample Name: CCB Acquired: 10/20/2011 13:48:03 Type: Blank
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 15.554	F -.15135	F 6.1267	-.00245	-.00080	-.39159	-.00268
Stddev	13.986	.00487	1.2004	.00098	.00115	.05722	.00023
%RSD	89.924	3.2192	19.593	39.977	143.31	14.612	8.4926

#1	20.382	-.14946	6.2765	-.00323	.00020	-.36140	-.00293
#2	26.486	-.14772	7.2451	-.00135	-.00206	-.45759	-.00266
#3	-.20726	-.15689	4.8584	-.00278	-.00054	-.35579	-.00247

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.01000	.01000	.01000				
Low Limit	-.01000	-.01000	-.01000				

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00022	.00061	-.00073	-.00020	-.00172	.00490
Stddev	.00006	.00045	.00083	.00022	.00009	.00074
%RSD	27.448	73.847	114.02	109.55	5.0693	15.105

#1	-.00024	.00012	-.00056	-.00042	-.00164	.00417
#2	-.00016	.00070	.00000	-.00020	-.00181	.00488
#3	-.00028	.00101	-.00163	.00002	-.00171	.00565

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	27210.	42475.
Stddev	215.	79.
%RSD	.79180	.18659

#1	27432.	42485.
#2	27196.	42549.
#3	27002.	42391.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: PBS C5 Acquired: 10/20/2011 13:51:37 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment: WG379587-01

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00023	.00128	-.00119	-.00055	-.00037	.00001	.02322
Stddev	.00018	.01616	.00099	.00021	.00008	.00002	.00131
%RSD	79.400	1257.7	83.531	38.626	22.843	105.05	5.6302

#1	.00015	.01671	-.00054	-.00079	-.00032	.00001	.02261
#2	.00010	-.01552	-.00070	-.00048	-.00047	.00003	.02233
#3	.00044	.00267	-.00233	-.00038	-.00032	.00001	.02472

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00011	-.00058	.00065	-.00018	.00918	-.18002	-.00360
Stddev	.00006	.00003	.00015	.00041	.00185	.00270	.00100
%RSD	56.170	5.3370	23.590	224.18	20.108	1.5012	27.823

#1	.00005	-.00061	.00058	-.00065	.01125	-.17901	-.00382
#2	.00011	-.00055	.00055	.00000	.00855	-.18308	-.00250
#3	.00018	-.00058	.00083	.00010	.00773	-.17796	-.00446

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00603	.00013	-.00197	-.00509	-.00066	F -.01453	-.00147
Stddev	.01284	.00017	.00017	.00259	.00056	.00514	.00080
%RSD	213.10	130.22	8.7205	50.779	85.231	35.355	54.719

#1	.00787	.00024	-.00185	-.00418	-.00051	-.01138	-.00158
#2	-.00850	-.00007	-.00217	-.00309	-.00019	-.02046	-.00061
#3	-.01745	.00022	-.00189	-.00801	-.00129	-.01176	-.00220

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	



Approved: October 21, 2011
<i>Emin D. Jong</i>

Sample Name: PBS C5 Acquired: 10/20/2011 13:51:37 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment: WG379587-01

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 23.070	.23763	F -11.591	.00039	.00006	.73852	-.00265
Stddev	10.194	.02408	1.721	.00080	.00151	.17658	.00008
%RSD	44.187	10.132	14.849	203.34	2642.3	23.910	3.0511

#1	11.791	.25413	-12.539	.00130	-.00141	.93125	-.00270
#2	31.625	.21001	-12.630	-.00020	-.00003	.58452	-.00255
#3	25.795	.24876	-9.6046	.00008	.00161	.69979	-.00269

Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000		9.0000				
Low Limit	-.00400		-.00400				

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00013	.00014	-.00211	-.00001	.00050	.00329
Stddev	.00010	.00025	.00057	.00006	.00002	.00042
%RSD	73.502	180.24	26.769	407.65	3.6601	12.635

#1	-.00016	.00035	-.00277	-.00008	.00051	.00287
#2	-.00021	.00020	-.00180	.00000	.00047	.00331
#3	-.00002	-.00014	-.00177	.00004	.00050	.00370

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	26278.	41660.
Stddev	79.	330.
%RSD	.29887	.79292

#1	26219.	41330.
#2	26248.	41991.
#3	26367.	41660.



Approved: October 21, 2011

Emin D. Long

Sample Name: LCSS C5 Acquired: 10/20/2011 13:55:02 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment: WG379587-02

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.19076	4.8142	.19013	.94360	.47322	.02441	4.7429
Stddev	.00156	.0333	.00037	.00627	.00194	.00015	.0270
%RSD	.81765	.69179	.19607	.66430	.40992	.63410	.56869

#1	.18917	4.7758	.18972	.94029	.47213	.02429	4.7136
#2	.19081	4.8337	.19044	.93969	.47206	.02436	4.7487
#3	.19229	4.8332	.19025	.95083	.47546	.02459	4.7666

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02417	.10157	.25017	.24603	1.9057	24.640	.47891
Stddev	.00006	.00005	.00197	.00082	.0110	.082	.00062
%RSD	.23344	.05055	.78693	.33171	.57873	.33469	.12951

#1	.02418	.10151	.24908	.24511	1.9019	24.545	.47878
#2	.02422	.10161	.24898	.24629	1.8971	24.692	.47837
#3	.02411	.10158	.25244	.24668	1.9182	24.683	.47959

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.8271	.24159	.52199	24.992	.25782	F -.00752	.23755
Stddev	.0382	.00140	.00092	.064	.00050	.00152	.00073
%RSD	.79216	.57921	.17669	.25681	.19200	20.153	.30873

#1	4.7894	.24031	.52254	24.944	.25767	-.00609	.23786
#2	4.8260	.24137	.52251	24.967	.25741	-.00911	.23808
#3	4.8659	.24308	.52093	25.064	.25837	-.00736	.23671

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: LCSS C5 Acquired: 10/20/2011 13:55:02 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment: WG379587-02

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 32.346	5.0480	4.1809	.57374	.18786	F 336.36	-.00269
Stddev	9.192	.0391	4.0369	.00267	.00092	.42	.00014
%RSD	28.417	.77515	96.557	.46455	.48757	.12557	5.2746

#1	22.269	5.0055	8.3624	.57344	.18892	336.39	-.00253
#2	40.271	5.0826	.30600	.57654	.18726	336.76	-.00282
#3	34.499	5.0557	3.8743	.57124	.18742	335.92	-.00271

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000					90.000	
Low Limit	-.00400					-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50315	.48962	.24588	.52251	.48545	.00729
Stddev	.00065	.00245	.00074	.00383	.00358	.00103
%RSD	.13005	.50136	.30287	.73339	.73804	14.087

#1	.50245	.48769	.24508	.51969	.48218	.00629
#2	.50374	.48879	.24603	.52096	.48489	.00723
#3	.50326	.49239	.24654	.52687	.48928	.00834

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	26015.	41226.
Stddev	179.	111.
%RSD	.68943	.27040

#1	26173.	41341.
#2	26053.	41118.
#3	25820.	41220.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: LCSS C5 Acquired: 10/20/2011 13:58:16 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment: WG379587-03

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.18812	4.7183	.18860	.94255	.46130	.02398	4.6381
Stddev	.00102	.0143	.00146	.00747	.00169	.00011	.0148
%RSD	.54090	.30287	.77172	.79269	.36573	.47315	.31973

#1	.18720	4.7018	.18789	.93439	.46154	.02387	4.6253
#2	.18795	4.7253	.19027	.94421	.46286	.02396	4.6346
#3	.18921	4.7277	.18763	.94905	.45951	.02409	4.6544

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02384	.09983	.24366	.24214	1.7855	24.252	.47075
Stddev	.00007	.00027	.00149	.00065	.0130	.090	.00166
%RSD	.30603	.27453	.60949	.26867	.72630	.37006	.35186

#1	.02377	.10014	.24195	.24270	1.7910	24.161	.47042
#2	.02383	.09963	.24457	.24143	1.7949	24.340	.47255
#3	.02392	.09972	.24446	.24228	1.7707	24.255	.46929

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.7451	.23643	.51363	24.582	.25569	F -.01141	.23374
Stddev	.0187	.00096	.00151	.079	.00091	.00165	.00308
%RSD	.39478	.40662	.29326	.32262	.35727	14.438	1.3186

#1	4.7348	.23562	.51510	24.559	.25642	-.01015	.23417
#2	4.7338	.23749	.51209	24.671	.25467	-.01327	.23046
#3	4.7667	.23618	.51369	24.517	.25599	-.01081	.23658

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: LCSS C5 Acquired: 10/20/2011 13:58:16 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment: WG379587-03

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 27.077	4.9653	3.5681	.57264	.18836	F 334.66	-.00245
Stddev	11.495	.0342	3.0286	.00339	.00157	.79	.00023
%RSD	42.451	.68794	84.881	.59121	.83154	.23536	9.2846

#1	38.411	4.9313	3.2472	.57570	.18667	335.56	-.00245
#2	15.428	4.9650	6.7444	.57322	.18866	334.12	-.00222
#3	27.393	4.9996	.71273	.56900	.18976	334.29	-.00268

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000					90.000	
Low Limit	-.00400					-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49591	.48116	.24401	.51526	.46962	.00152
Stddev	.00137	.00048	.00055	.00250	.00192	.00022
%RSD	.27668	.09989	.22442	.48463	.40869	14.353

#1	.49464	.48076	.24444	.51277	.46865	.00129
#2	.49572	.48170	.24339	.51527	.46839	.00154
#3	.49737	.48103	.24420	.51776	.47184	.00173

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	26280.	41995.
Stddev	68.	163.
%RSD	.25785	.38776

#1	26333.	41849.
#2	26302.	41965.
#3	26203.	42171.



Approved: October 21, 2011

Emin D. Long

Sample Name: L1110049501 Acquired: 10/20/2011 14:01:29 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00102	.01100	-.00008	-.00367	.00490	.00001	.22234
Stddev	.00024	.00592	.00037	.00029	.00006	.00001	.00614
%RSD	23.542	53.802	473.04	8.0284	1.2415	133.34	2.7619

#1	.00115	.00565	.00033	-.00344	.00485	.00002	.21819
#2	.00117	.00999	-.00040	-.00400	.00497	.00001	.22939
#3	.00074	.01735	-.00016	-.00358	.00489	.00000	.21943

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00018	-.00050	.00567	.00246	.27403	-.13752	-.00405
Stddev	.00007	.00004	.00026	.00037	.00295	.00356	.00062
%RSD	38.399	7.4188	4.5046	15.082	1.0757	2.5880	15.337

#1	.00017	-.00054	.00586	.00286	.27090	-.13345	-.00393
#2	.00026	-.00047	.00538	.00237	.27676	-.14005	-.00472
#3	.00012	-.00050	.00577	.00214	.27442	-.13906	-.00349

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.03100	.00057	-.00028	.17700	.00547	.09678	.00190
Stddev	.00306	.00023	.00023	.00283	.00026	.00057	.00085
%RSD	9.8633	41.303	82.943	1.5995	4.7425	.58481	44.985

#1	.03422	.00079	-.00055	.17491	.00537	.09649	.00286
#2	.02814	.00032	-.00016	.18022	.00576	.09641	.00159
#3	.03063	.00059	-.00013	.17586	.00527	.09743	.00124

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110049501 Acquired: 10/20/2011 14:01:29 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 23.799	F 680.96	F -37545.	-0.00456	.01101	F 192.64	.00112
Stddev	6.825	2.87	213.	.00172	.00206	.44	.00027
%RSD	28.678	.42169	.56631	37.788	18.704	.23002	24.079

#1	15.923	682.18	-37675.	-.00536	.01312	192.28	.00105
#2	27.962	683.01	-37661.	-.00258	.00901	192.52	.00142
#3	27.514	677.68	-37300.	-.00574	.01088	193.14	.00090

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-.00400	-.00400	-.00400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00108	.00433	-0.01120	.01312	.07574	.00883
Stddev	.00005	.00028	.00022	.00037	.00040	.00015
%RSD	5.0920	6.5505	1.9661	2.8123	.52789	1.7011

#1	.00113	.00410	-.01096	.01280	.07619	.00866
#2	.00107	.00464	-.01138	.01352	.07543	.00895
#3	.00103	.00424	-.01126	.01305	.07559	.00888

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	26643.	44766.
Stddev	33.	77.
%RSD	.12219	.17095

#1	26628.	44810.
#2	26620.	44811.
#3	26680.	44678.



Approved: October 21, 2011

Emin D. Long

Sample Name: L1110049502 Acquired: 10/20/2011 14:04:50 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00232	1.8758	.00484	.00730	.17148	.00024	4.9341
Stddev	.00043	.0087	.00027	.00039	.00026	.00001	.0200
%RSD	18.343	.46390	5.6829	5.3909	.15325	4.8602	.40519

#1	.00242	1.8706	.00508	.00754	.17175	.00025	4.9558
#2	.00269	1.8709	.00454	.00751	.17123	.00023	4.9164
#3	.00186	1.8858	.00490	.00684	.17145	.00024	4.9301

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00434	.00540	.16299	.46865	18.915	-.09677	-.00261
Stddev	.00003	.00010	.00297	.00182	.061	.00961	.00148
%RSD	.63424	1.9254	1.8220	.38869	.32320	9.9315	56.595

#1	.00433	.00531	.16599	.46664	18.985	-.08607	-.00178
#2	.00436	.00538	.16293	.46912	18.872	-.09958	-.00432
#3	.00431	.00552	.16005	.47020	18.888	-.10467	-.00173

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.42935	.06449	.04656	.56642	.09456	.61611	.17627
Stddev	.00414	.00027	.00051	.00515	.00049	.00374	.00114
%RSD	.96454	.42110	1.1026	.91006	.51847	.60659	.64599

#1	.42460	.06480	.04601	.57227	.09400	.61197	.17662
#2	.43128	.06435	.04666	.56443	.09480	.61712	.17500
#3	.43218	.06431	.04702	.56256	.09489	.61924	.17719

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110049502 Acquired: 10/20/2011 14:04:50 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 10.678	F 737.11	F -40172.	.00320	.00360	F 695.14	.00613
Stddev	2.846	2.95	164.	.00194	.00106	4.90	.00012
%RSD	26.653	.39976	.40845	60.486	29.549	.70428	1.9504

#1	13.903	734.28	-40033.	.00474	.00262	690.68	.00623
#2	8.5178	736.89	-40130.	.00103	.00473	694.36	.00600
#3	9.6140	740.16	-40353.	.00385	.00344	700.38	.00615

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-.00400	-.00400	-.00400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02900	.04160	.00134	.18417	2.6048	.00507
Stddev	.00008	.00081	.00078	.00223	.0082	.00007
%RSD	.29142	1.9393	58.253	1.2115	.31448	1.3135

#1	.02901	.04212	.00217	.18661	2.5953	.00515
#2	.02908	.04067	.00121	.18368	2.6099	.00502
#3	.02892	.04201	.00063	.18223	2.6091	.00505

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	26808.	43464.
Stddev	352.	443.
%RSD	1.3118	1.0197

#1	26426.	43030.
#2	26881.	43915.
#3	27118.	43446.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110049503 Acquired: 10/20/2011 14:08:04 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00164	.35449	.00351	-.00211	.04175	.00015	1.6622
Stddev	.00020	.00393	.00050	.00094	.00010	.00003	.0014
%RSD	12.373	1.1099	14.136	44.321	.24075	19.494	.08388

#1	.00183	.34996	.00408	-.00279	.04186	.00015	1.6636
#2	.00167	.35710	.00318	-.00251	.04165	.00018	1.6608
#3	.00142	.35640	.00327	-.00104	.04175	.00012	1.6621

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00190	.00065	.05710	.19945	4.1849	-.12588	-.00340
Stddev	.00006	.00007	.00055	.00090	.0121	.01521	.00086
%RSD	2.9578	11.289	.95745	.45341	.28951	12.083	25.221

#1	.00190	.00071	.05658	.19880	4.1862	-.11168	-.00308
#2	.00184	.00057	.05705	.20049	4.1722	-.12403	-.00276
#3	.00195	.00066	.05767	.19907	4.1963	-.14193	-.00438

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.11698	.01057	.01700	.22821	.04466	.36128	.06467
Stddev	.00355	.00017	.00017	.00604	.00038	.00041	.00122
%RSD	3.0344	1.5742	.99539	2.6454	.84470	.11421	1.8873

#1	.12094	.01068	.01712	.22582	.04505	.36144	.06355
#2	.11408	.01038	.01709	.23507	.04429	.36159	.06449
#3	.11591	.01066	.01681	.22373	.04464	.36081	.06597

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011

Emin D. Long

Sample Name: L1110049503 Acquired: 10/20/2011 14:08:04 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 26.126	F 1014.0	F -55744.	-0.00321	.01078	F 345.18	.00449
Stddev	5.657	1.6	73.	.00057	.00048	2.60	.00024
%RSD	21.655	.15586	.13114	17.884	4.4114	.75346	5.4176

#1	19.615	1015.8	-55828.	-0.00315	.01102	342.36	.00474
#2	28.918	1013.4	-55705.	-0.00266	.01109	347.49	.00449
#3	29.845	1012.9	-55698.	-0.00381	.01023	345.69	.00425

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-0.0400	-0.0400	-0.0400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00865	.01757	-0.00712	.12820	1.2086	.00485
Stddev	.00008	.00063	.00038	.00010	.0010	.00005
%RSD	.87385	3.5930	5.3489	.07827	.08063	.95927

#1	.00872	.01794	-.00686	.12821	1.2094	.00481
#2	.00857	.01684	-.00756	.12830	1.2089	.00484
#3	.00867	.01793	-.00694	.12810	1.2075	.00490

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	26863.	43707.
Stddev	81.	200.
%RSD	.30153	.45754

#1	26820.	43927.
#2	26812.	43537.
#3	26956.	43656.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110065301 Acquired: 10/20/2011 14:11:22 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00096	.15173	-.00037	.05623	.00696	-.00001	4.0783
Stddev	.00024	.00848	.00074	.00056	.00006	.00001	.0097
%RSD	24.907	5.5882	201.11	1.0030	.90070	187.24	.23882

#1	.00073	.15964	-.00041	.05679	.00689	-.00001	4.0895
#2	.00096	.15278	-.00108	.05623	.00701	-.00001	4.0720
#3	.00121	.14278	.00039	.05566	.00698	.00001	4.0734

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00054	-.00039	.00738	.05392	1.0725	-.07963	-.00270
Stddev	.00004	.00008	.00010	.00034	.0071	.00526	.00067
%RSD	6.7053	20.042	1.3300	.63224	.66245	6.6035	24.786

#1	.00050	-.00047	.00729	.05427	1.0702	-.08506	-.00344
#2	.00055	-.00032	.00737	.05359	1.0668	-.07926	-.00214
#3	.00057	-.00038	.00749	.05390	1.0804	-.07457	-.00253

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.22674	.01287	.02439	.36907	.00101	1.9921	.01317
Stddev	.01403	.00008	.00022	.00468	.00007	.0029	.00100
%RSD	6.1865	.58762	.88573	1.2673	6.9396	.14377	7.6006

#1	.23213	.01293	.02464	.36389	.00103	1.9934	.01271
#2	.21082	.01278	.02426	.37297	.00093	1.9888	.01248
#3	.23728	.01289	.02427	.37036	.00107	1.9941	.01432

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110065301 Acquired: 10/20/2011 14:11:22 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 22.120	F 394.45	F -21555.	-0.00470	.00734	F 155.60	.00220
Stddev	5.493	.77	42.	.00125	.00106	.51	.00036
%RSD	24.833	.19443	.19278	26.601	14.429	.32791	16.452

#1	15.948	394.97	-21566.	-.00528	.00687	156.19	.00201
#2	23.937	393.57	-21509.	-.00327	.00659	155.25	.00197
#3	26.474	394.81	-21590.	-.00556	.00855	155.36	.00262

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-.00400	-.00400	-.00400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00196	.00527	-0.00775	.00062	2.1955	.00697
Stddev	.00002	.00039	.00126	.00010	.0069	.00013
%RSD	.79561	7.3636	16.315	15.838	.31373	1.8814

#1	.00198	.00514	-.00841	.00052	2.2032	.00690
#2	.00195	.00571	-.00855	.00072	2.1934	.00688
#3	.00197	.00497	-.00629	.00061	2.1899	.00712

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	27141.	44101.
Stddev	47.	949.
%RSD	.17383	2.1526

#1	27134.	45006.
#2	27097.	44184.
#3	27191.	43113.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110065301PS Acquired: 10/20/2011 14:14:40 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment: WG379665-01

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.19470	4.9512	.19925	1.0493	.47601	.02499	8.4032
Stddev	.00016	.0153	.00056	.0032	.00234	.00007	.0152
%RSD	.08077	.30884	.28151	.29983	.49128	.28874	.18114

#1	.19488	4.9383	.19918	1.0522	.47740	.02503	8.3882
#2	.19463	4.9470	.19984	1.0498	.47731	.02502	8.4186
#3	.19459	4.9681	.19872	1.0459	.47331	.02490	8.4028

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02486	.10198	.25755	.29502	2.7366	24.999	.48347
Stddev	.00009	.00025	.00097	.00038	.0015	.025	.00199
%RSD	.38090	.24317	.37839	.12943	.05368	.09831	.41141

#1	.02476	.10174	.25663	.29459	2.7382	25.001	.48478
#2	.02487	.10196	.25745	.29533	2.7354	24.974	.48445
#3	.02495	.10224	.25858	.29514	2.7361	25.023	.48118

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.9733	.25192	.54591	25.471	.26338	1.8390	.25120
Stddev	.0467	.00075	.00074	.032	.00063	.0044	.00055
%RSD	.93906	.29719	.13610	.12681	.23784	.23913	.21972

#1	4.9643	.25127	.54531	25.490	.26266	1.8339	.25067
#2	4.9317	.25174	.54569	25.434	.26362	1.8412	.25116
#3	5.0238	.25274	.54674	25.490	.26384	1.8418	.25178

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110065301PS Acquired: 10/20/2011 14:14:40 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment: WG379665-01

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 24.627	F 373.28	F -20139.	.58352	.21182	F 610.12	.00392
Stddev	17.168	1.19	59.	.00237	.00200	.87	.00030
%RSD	69.712	.31984	.29220	.40675	.94361	.14282	7.7168

#1	42.722	374.14	-20172.	.58266	.21004	609.79	.00358
#2	22.591	373.79	-20175.	.58169	.21145	609.46	.00405
#3	8.5678	371.92	-20071.	.58620	.21398	611.11	.00414

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-.00400	-.00400	-.00400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.51436	.49814	.24459	.53294	2.4836	.00696
Stddev	.00170	.00102	.00096	.00069	.0049	.00017
%RSD	.33100	.20575	.39306	.12874	.19689	2.4589

#1	.51560	.49909	.24389	.53367	2.4892	.00679
#2	.51506	.49829	.24418	.53283	2.4806	.00695
#3	.51242	.49705	.24568	.53232	2.4809	.00713

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	26277.	45322.
Stddev	74.	992.
%RSD	.28152	2.1880

#1	26362.	45833.
#2	26232.	45955.
#3	26236.	44179.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110065301SDL Acquired: 10/20/2011 14:17:49 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: 5 Custom ID2: Custom ID3:
 Comment: WG379665-02

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00020	.01719	.00000	.01304	.00108	-.00002	.81030
Stddev	.00018	.00829	.00055	.00042	.00015	.00001	.00598
%RSD	93.293	48.265	24445.	3.1843	13.473	46.237	.73770

#1	.00041	.01639	-.00010	.01351	.00106	-.00002	.80432
#2	.00008	.02585	-.00049	.01286	.00124	-.00001	.81628
#3	.00010	.00932	.00059	.01274	.00095	-.00002	.81029

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00006	-.00015	.00134	.01006	.21299	-.14836	-.00356
Stddev	.00008	.00009	.00028	.00035	.00295	.02798	.00092
%RSD	126.60	63.177	20.691	3.4675	1.3839	18.861	25.933

#1	.00001	-.00005	.00163	.00988	.21455	-.12983	-.00324
#2	.00002	-.00024	.00131	.00984	.20959	-.13471	-.00284
#3	.00015	-.00016	.00108	.01047	.21482	-.18055	-.00460

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.03869	.00267	.00346	.05636	-.00018	.41328	.00257
Stddev	.00340	.00015	.00011	.00749	.00012	.00350	.00078
%RSD	8.7827	5.6976	3.1928	13.295	66.051	.84661	30.328

#1	.04256	.00278	.00336	.06439	-.00005	.41000	.00190
#2	.03734	.00250	.00343	.04955	-.00022	.41287	.00343
#3	.03618	.00274	.00358	.05515	-.00028	.41696	.00238

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011
<i>Evan D. Long</i>

Sample Name: L1110065301SDL Acquired: 10/20/2011 14:17:49 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: 5 Custom ID2: Custom ID3:
 Comment: WG379665-02

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 16.424	F 88.368	F -4820.5	-0.00485	.00214	36.012	-0.00235
Stddev	8.965	.366	22.9	.00072	.00137	.521	.00028
%RSD	54.583	.41433	.47471	14.749	64.107	1.4475	12.090

#1	16.379	87.948	-4794.5	-.00535	.00358	36.590	-.00221
#2	7.4820	88.537	-4837.2	-.00516	.00084	35.868	-.00218
#3	25.411	88.620	-4829.9	-.00403	.00201	35.577	-.00268

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000	9.0000	9.0000				
Low Limit	-.00400	-.00400	-.00400				

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00017	.00103	-.00142	.00005	.44802	.00113
Stddev	.00006	.00086	.00074	.00031	.00133	.00006
%RSD	34.878	83.408	52.200	589.30	.29671	5.6233

#1	.00010	.00025	-.00110	-.00005	.44652	.00117
#2	.00021	.00088	-.00226	.00040	.44907	.00105
#3	.00019	.00194	-.00089	-.00019	.44846	.00116

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	27996.	44008.
Stddev	213.	520.
%RSD	.76244	1.1826

#1	28242.	43857.
#2	27862.	43580.
#3	27884.	44587.



Approved: October 21, 2011

Emin D. Long

Sample Name: L1110065301SDL Acquired: 10/20/2011 14:21:09 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: 25 Custom ID2: Custom ID3:
 Comment: WG379665-02

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00037	-.00265	.00133	.00081	-.00021	-.00002	.15862
Stddev	.00022	.00816	.00078	.00041	.00003	.00002	.00402
%RSD	59.869	307.72	58.972	50.410	16.058	121.38	2.5366

#1	.00016	-.01124	.00222	.00110	-.00019	-.00003	.15648
#2	.00060	-.00171	.00079	.00034	-.00019	.00001	.15612
#3	.00035	.00499	.00096	.00099	-.00025	-.00004	.16326

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00014	-.00009	.00003	.00132	.03962	-.19203	-.00251
Stddev	.00004	.00006	.00010	.00031	.00134	.02400	.00093
%RSD	28.440	68.102	378.09	23.667	3.3815	12.496	37.128

#1	-.00018	-.00003	-.00004	.00100	.03844	-.16506	-.00183
#2	-.00014	-.00009	.00014	.00133	.04107	-.21103	-.00357
#3	-.00010	-.00014	-.00002	.00162	.03934	-.19998	-.00212

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00335	.00047	-.00091	-.00846	-.00112	.07594	-.00075
Stddev	.01469	.00023	.00013	.01377	.00033	.00165	.00127
%RSD	438.76	47.987	14.111	162.81	28.903	2.1780	168.81

#1	.00274	.00026	-.00103	-.01172	-.00089	.07772	-.00115
#2	.01833	.00071	-.00094	-.02031	-.00099	.07567	.00067
#3	-.01103	.00045	-.00077	.00665	-.00150	.07444	-.00178

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011

Emin D. Long

Sample Name: L1110065301SDL Acquired: 10/20/2011 14:21:09 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: 25 Custom ID2: Custom ID3:
 Comment: WG379665-02

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 14.242	F 17.862	F -972.30	-0.00393	-0.00081	7.0704	-0.00325
Stddev	12.566	.075	8.14	.00053	.00108	.0910	.00014
%RSD	88.232	.42069	.83704	13.615	133.44	1.2867	4.3992

#1	3.3235	17.882	-964.57	-0.00453	-0.00202	7.1542	-0.00325
#2	27.978	17.780	-971.54	-0.00351	-0.00048	7.0833	-0.00310
#3	11.425	17.926	-980.80	-0.00374	.00007	6.9737	-0.00339

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000	9.0000	9.0000				
Low Limit	-0.00400	-0.00400	-0.00400				

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00022	.00039	.00092	-0.00022	.09285	-0.00010
Stddev	.00007	.00090	.00013	.00018	.00106	.00005
%RSD	31.511	228.95	14.626	79.809	1.1440	52.727

#1	-0.00028	.00074	.00093	-0.00022	.09200	-0.00013
#2	-0.00022	.00107	.00105	-0.00041	.09250	-0.00004
#3	-0.00015	-0.00063	.00078	-0.00005	.09404	-0.00013

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	27826.	44304.
Stddev	102.	1149.
%RSD	.36722	2.5938

#1	27944.	45629.
#2	27762.	43699.
#3	27772.	43583.



Approved: October 21, 2011
Emin D. Long

Sample Name: CCV Acquired: 10/20/2011 14:24:39 Type: QC
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.40548	9.8650	.40796	.53371	.96279	.05099	9.7112
Stddev	.00424	.0173	.00253	.00447	.00255	.00046	.0193
%RSD	1.0461	.17553	.61908	.83713	.26485	.89845	.19876

#1	.40058	9.8795	.40616	.52877	.96034	.05047	9.7063
#2	.40788	9.8697	.40686	.53486	.96543	.05118	9.7325
#3	.40798	9.8459	.41084	.53748	.96260	.05132	9.6949

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 Value
 Range

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05059	.20477	.49884	.51245	3.7934	51.350	.98818
Stddev	.00005	.00038	.00576	.00097	.0209	.154	.00115
%RSD	.09454	.18729	1.1549	.18883	.55003	.30030	.11616

#1	.05064	.20477	.49222	.51347	3.7706	51.521	.98902
#2	.05056	.20439	.50271	.51155	3.8116	51.308	.98865
#3	.05056	.20516	.50159	.51232	3.7980	51.221	.98687

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 Value
 Range

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.161	.49773	1.0073	50.679	.52580	10.466	.49257
Stddev	.010	.00090	.0006	.086	.00132	.002	.00205
%RSD	.10249	.18126	.05896	.17046	.25111	.01975	.41665

#1	10.172	.49868	1.0077	50.775	.52439	10.464	.49463
#2	10.160	.49689	1.0066	50.606	.52599	10.465	.49255
#3	10.151	.49760	1.0075	50.658	.52701	10.468	.49052

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 Value
 Range



Approved: October 21, 2011
Emin D. Jong

Sample Name: CCV Acquired: 10/20/2011 14:24:39 Type: QC
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 15.867	10.502	F 13.886	1.2558	.40553	F 7.5163	1.0536
Stddev	9.839	.076	1.512	.0018	.00180	.1591	.0054
%RSD	62.006	.72332	10.886	.14071	.44380	2.1162	.50857

#1	7.0167	10.532	12.669	1.2543	.40647	7.6186	1.0485
#2	14.124	10.415	13.410	1.2578	.40666	7.3330	1.0532
#3	26.461	10.558	15.578	1.2554	.40345	7.5972	1.0592

Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
Value	10.000		10.000			5.0000	
Range	10.000%		10.000%			10.000%	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0297	1.0098	.52806	1.0385	.97999	1.0500
Stddev	.0037	.0024	.00129	.0075	.00143	.0058
%RSD	.36262	.23827	.24479	.72149	.14562	.55358

#1	1.0340	1.0125	.52681	1.0301	.97854	1.0435
#2	1.0282	1.0093	.52797	1.0410	.98005	1.0546
#3	1.0270	1.0077	.52940	1.0444	.98139	1.0521

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	26368.	40640.
Stddev	152.	75.
%RSD	.57489	.18502

#1	26514.	40644.
#2	26379.	40562.
#3	26212.	40713.



Approved: October 21, 2011
<i>Erin D. Long</i>

Sample Name: CCB Acquired: 10/20/2011 14:27:49 Type: Blank
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00055	-0.01319	.00117	-0.00063	-0.00040	.00000	-0.01300
Stddev	.00021	.00490	.00114	.00023	.00004	.0000	.00300
%RSD	38.151	37.161	97.448	36.734	9.2604	2087.2	23.093

#1	.00076	-0.00819	.00049	-0.00042	-0.00043	.00000	-0.01646
#2	.00034	-0.01798	.00248	-0.00087	-0.00042	-0.00003	-0.01144
#3	.00056	-0.01340	.00052	-0.00059	-0.00036	.00002	-0.01110

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00015	-0.00017	-0.00024	-0.00118	-0.00173	-0.10447	-0.00363
Stddev	.00012	.00009	.00042	.00018	.00263	.02455	.00073
%RSD	80.439	53.413	173.37	15.105	151.93	23.502	20.084

#1	-0.00029	-0.00027	.00006	-0.00115	-0.00477	-0.07936	-0.00437
#2	-0.00006	-0.00010	-0.00006	-0.00102	-0.00023	-0.10562	-0.00358
#3	-0.00010	-0.00013	-0.00073	-0.00138	-0.00019	-0.12842	-0.00292

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00271	-0.00014	-0.00180	-0.01175	-0.00073	F -0.01106	-0.00104
Stddev	.00896	.00011	.00007	.00152	.00032	.00157	.00069
%RSD	331.17	80.613	3.8206	12.965	44.040	14.227	66.573

#1	.01031	-0.00007	-0.00188	-0.01332	-0.00041	-0.01245	-0.00174
#2	.00498	-0.00008	-0.00178	-0.01028	-0.00071	-0.01139	-0.00103
#3	-0.00717	-0.00026	-0.00175	-0.01164	-0.00105	-0.00935	-0.00035

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						.01000	
Low Limit						-0.01000	



Approved: October 21, 2011
<i>Erin D. Long</i>

Sample Name: CCB Acquired: 10/20/2011 14:27:49 Type: Blank
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 18.034	F -.09611	F 2.3710	-.00174	-.00313	.57654	-.00241
Stddev	6.703	.01153	1.2671	.00095	.00193	.10061	.00022
%RSD	37.166	11.992	53.443	54.701	61.733	17.451	9.1202

#1	11.822	-.10333	3.6830	-.00150	-.00099	.69235	-.00265
#2	25.139	-.08282	1.1542	-.00279	-.00475	.51076	-.00234
#3	17.142	-.10219	2.2757	-.00094	-.00364	.52650	-.00223

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.01000	.01000	.01000				
Low Limit	-.01000	-.01000	-.01000				

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00029	-.00009	-.00070	-.00012	-.00172	.00515
Stddev	.00007	.00063	.00104	.00013	.00003	.00065
%RSD	24.787	670.10	149.49	114.93	1.8082	12.619

#1	-.00021	-.00068	-.00041	-.00026	-.00175	.00449
#2	-.00034	-.00017	-.00185	-.00011	-.00169	.00517
#3	-.00032	.00057	.00017	.00001	-.00173	.00579

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	27171.	41469.
Stddev	62.	773.
%RSD	.22964	1.8645

#1	27100.	40702.
#2	27197.	41455.
#3	27216.	42249.



Approved: October 21, 2011

Emin D. Long

Sample Name: PBS 6A Acquired: 10/20/2011 14:31:23 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment: WG378864-02

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00050	-.00728	-.00218	-.00038	-.00017	-.00002	.06115
Stddev	.00036	.01328	.00100	.00056	.00011	.00000	.00435
%RSD	71.491	182.37	45.792	149.41	65.704	26.167	7.1217

#1	.00091	-.02245	-.00215	.00003	-.00030	-.00001	.05926
#2	.00021	-.00168	-.00319	-.00102	-.00011	-.00002	.05806
#3	.00039	.00228	-.00119	-.00014	-.00010	-.00002	.06613

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00019	-.00061	.00218	-.00028	.09814	-.17726	-.00406
Stddev	.00008	.00005	.00017	.00021	.00250	.03112	.00060
%RSD	44.276	8.9485	7.8803	73.038	2.5442	17.554	14.897

#1	.00028	-.00063	.00206	-.00052	.09921	-.15139	-.00400
#2	.00013	-.00064	.00211	-.00019	.09529	-.16862	-.00348
#3	.00015	-.00054	.00238	-.00014	.09993	-.21179	-.00469

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02828	.00053	-.00179	.01012	-.00003	F -.01254	-.00086
Stddev	.00510	.00013	.00021	.01038	.00084	.00265	.00075
%RSD	18.050	24.980	11.614	102.54	2922.3	21.105	86.987

#1	.03378	.00045	-.00202	.00997	.00084	-.01341	-.00016
#2	.02735	.00045	-.00175	.02057	-.00084	-.01463	-.00166
#3	.02370	.00068	-.00161	-.00018	-.00008	-.00956	-.00077

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	



Approved: October 21, 2011
<i>Erin D. Long</i>

Sample Name: PBS 6A Acquired: 10/20/2011 14:31:23 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment: WG378864-02

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 26.076	.49293	F -17.148	.00026	.00184	2.2635	-.00272
Stddev	6.913	.03080	2.698	.00037	.00176	.0797	.00014
%RSD	26.510	6.2479	15.736	140.77	95.734	3.5223	5.1682

#1	33.927	.52601	-18.644	-.00008	.00388	2.3165	-.00287
#2	23.401	.46508	-18.767	.00065	.00088	2.1718	-.00258
#3	20.901	.48771	-14.033	.00021	.00077	2.3022	-.00272

Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000		9.0000				
Low Limit	-.00400		-.00400				

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00001	.00072	-.00260	-.00008	.00095	.00347
Stddev	.00008	.00019	.00106	.00007	.00002	.00040
%RSD	1118.3	26.786	40.772	90.064	2.4427	11.500

#1	-.00001	.00092	-.00370	-.00004	.00095	.00302
#2	.00009	.00070	-.00254	-.00015	.00098	.00359
#3	-.00006	.00054	-.00158	-.00003	.00093	.00379

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	26563.	43330.
Stddev	140.	698.
%RSD	.52738	1.6102

#1	26718.	43573.
#2	26527.	43873.
#3	26445.	42543.



Approved: October 21, 2011

Emin D. Long

Sample Name: LCSS 6A Acquired: 10/20/2011 14:34:50 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment: WG378864-03

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.18789	.00301	.19400	-.00084	-.00024	-.00001	.02966
Stddev	.00096	.00462	.00030	.00084	.00016	.00001	.00415
%RSD	.51043	153.37	.15567	99.652	65.258	223.95	13.980

#1	.18735	-.00228	.19377	-.00164	-.00006	-.00002	.03339
#2	.18900	.00507	.19434	-.00091	-.00037	-.00001	.02519
#3	.18733	.00626	.19389	.00003	-.00029	.00001	.03040

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02496	-.00065	.00110	.25873	.00219	-.16012	-.00392
Stddev	.00019	.00010	.00006	.00059	.00154	.01769	.00078
%RSD	.75930	15.085	5.4627	.22876	70.273	11.048	19.940

#1	.02482	-.00058	.00117	.25838	.00363	-.14870	-.00355
#2	.02488	-.00076	.00108	.25840	.00057	-.15115	-.00339
#3	.02518	-.00060	.00106	.25942	.00236	-.18049	-.00482

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01436	.25353	-.00182	.00619	-.00032	F -.01473	.25154
Stddev	.01513	.00064	.00011	.01464	.00044	.00221	.00056
%RSD	105.33	.25356	6.1662	236.27	138.34	15.037	.22391

#1	.02843	.25279	-.00172	-.01070	-.00082	-.01346	.25219
#2	.01630	.25393	-.00179	.01502	-.00015	-.01729	.25115
#3	-.00164	.25387	-.00194	.01426	.00001	-.01344	.25129

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	



Approved: October 21, 2011

Erin D. Long

Sample Name: LCSS 6A Acquired: 10/20/2011 14:34:50 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment: WG378864-03

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 24.664	.38979	F -19.386	-0.0041	-0.00149	1.8108	-0.00303
Stddev	18.141	.05215	5.251	.00065	.00071	.1029	.00030
%RSD	73.552	13.379	27.085	156.96	47.596	5.6816	9.9002

#1	6.6090	.35015	-17.832	-.00105	-.00092	1.8562	-.00335
#2	24.494	.37036	-25.239	-.00044	-.00126	1.8832	-.00296
#3	42.890	.44887	-15.088	.00025	-.00228	1.6931	-.00276

Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000		9.0000				
Low Limit	-.00400		-.00400				

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00012	.00034	-.00221	-.00025	.00037	.00127
Stddev	.00002	.00035	.00230	.00006	.00008	.00029
%RSD	17.473	102.91	103.92	24.385	22.342	22.955

#1	-.00010	-.00006	-.00010	-.00029	.00032	.00103
#2	-.00011	.00049	-.00187	-.00028	.00032	.00119
#3	-.00014	.00058	-.00465	-.00018	.00046	.00160

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	26017.	42347.
Stddev	125.	528.
%RSD	.48163	1.2458

#1	26161.	41939.
#2	25951.	42159.
#3	25938.	42943.



Approved: October 21, 2011

Emin D. Long

Sample Name: L1110034346 Acquired: 10/20/2011 14:38:13 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00912	226.01	.22178	.06812	2.3404	.02472	42.949
Stddev	.00043	1.05	.00130	.00554	.0157	.00043	.227
%RSD	4.7566	.46265	.58717	8.1393	.66910	1.7586	.52947

#1	.00902	225.94	.22141	.07089	2.3287	.02427	42.873
#2	.00875	225.00	.22323	.07172	2.3343	.02476	42.769
#3	.00960	227.09	.22070	.06173	2.3582	.02513	43.205

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F -.00098	.41247	.50947	.35208	816.32	14.400	.18870
Stddev	.00007	.00059	.00896	.00126	6.73	.063	.00182
%RSD	6.7354	.14282	1.7595	.35720	.82446	.43462	.96687

#1	-.00104	.41187	.50149	.35121	811.63	14.373	.18666
#2	-.00091	.41251	.50775	.35352	813.30	14.355	.18930
#3	-.00100	.41304	.51917	.35150	824.03	14.472	.19015

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	16.200						
Low Limit	-.00050						

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	25.527	33.034	.02136	.65379	.34199	5.3851	.92658
Stddev	.101	.086	.00022	.00966	.00167	.0132	.00456
%RSD	.39688	.25916	1.0077	1.4779	.48761	.24451	.49218

#1	25.414	33.081	.02160	.65923	.34078	5.3920	.92208
#2	25.561	32.935	.02130	.64264	.34389	5.3934	.93120
#3	25.608	33.087	.02118	.65952	.34130	5.3699	.92644

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110034346 Acquired: 10/20/2011 14:38:13 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 36.098	F 196.18	F -8209.1	.00937	.03119	F 280.88	.01268
Stddev	8.905	.54	23.0	.00348	.00264	.38	.00037
%RSD	24.670	.27513	.28025	37.121	8.4711	.13689	2.9119

#1	28.370	196.77	-8229.1	.00811	.02969	281.24	.01263
#2	34.087	196.04	-8214.3	.01330	.02964	280.92	.01234
#3	45.837	195.72	-8184.0	.00669	.03424	280.47	.01307

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-.00400	-.00400	-.00400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.30706	.30735	.05095	.90830	1.3270	.16308
Stddev	.00123	.00072	.00170	.01557	.0064	.00280
%RSD	.40132	.23370	3.3426	1.7144	.48309	1.7144

#1	.30746	.30714	.04902	.89236	1.3196	.16012
#2	.30567	.30677	.05162	.90907	1.3306	.16345
#3	.30804	.30816	.05222	.92347	1.3308	.16567

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	26752.	44600.
Stddev	275.	21.
%RSD	1.0273	.04820

#1	27049.	44605.
#2	26699.	44576.
#3	26507.	44619.



Approved: October 21, 2011

Emin D. Long

Sample Name: L1110034347 Acquired: 10/20/2011 14:41:38 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00588	261.16	.15699	.06446	2.9136	.02128	51.061
Stddev	.00038	.38	.00314	.00565	.0027	.00010	.076
%RSD	6.4266	.14571	1.9998	8.7590	.09309	.46400	.14805

#1	.00595	261.14	.15463	.07069	2.9141	.02125	51.086
#2	.00621	261.55	.15579	.06301	2.9160	.02138	51.121
#3	.00546	260.79	.16055	.05968	2.9107	.02119	50.976

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00852	.24606	.43980	.25405	491.64	19.984	.17739
Stddev	.00019	.00044	.00094	.00237	4.11	.080	.00037
%RSD	2.1948	.17791	.21335	.93121	.83623	.40012	.20813

#1	.00870	.24651	.43873	.25179	495.21	20.013	.17772
#2	.00833	.24604	.44048	.25651	492.57	20.045	.17746
#3	.00852	.24564	.44019	.25384	487.15	19.894	.17700

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	26.224	19.403	.00971	2.0157	.25573	5.1019	.64146
Stddev	.048	.027	.00007	.0085	.00085	.0017	.00278
%RSD	.18440	.13674	.73315	.42012	.33221	.03255	.43309

#1	26.173	19.406	.00972	2.0206	.25549	5.1006	.64254
#2	26.269	19.427	.00964	2.0207	.25667	5.1013	.64353
#3	26.231	19.374	.00978	2.0059	.25502	5.1038	.63830

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011

Emin D. Long

Sample Name: L1110034347 Acquired: 10/20/2011 14:41:38 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 32.022	F 282.27	F -12608.	.00358	.02086	F 275.89	.01425
Stddev	.757	.20	22.	.00133	.00163	.30	.00022
%RSD	2.3655	.06943	.17153	37.187	7.8155	.10773	1.5469

#1	31.215	282.07	-12593.	.00444	.01926	275.76	.01414
#2	32.717	282.46	-12598.	.00205	.02252	276.23	.01450
#3	32.134	282.30	-12633.	.00425	.02081	275.68	.01410

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-.00400	-.00400	-.00400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.39967	.24641	.03092	.67309	1.7546	.17123
Stddev	.00157	.00048	.00102	.00180	.0030	.00035
%RSD	.39342	.19535	3.3115	.26816	.17151	.20566

#1	.40071	.24673	.03002	.67134	1.7574	.17092
#2	.40045	.24586	.03203	.67495	1.7549	.17162
#3	.39786	.24665	.03070	.67299	1.7514	.17116

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	27718.	44790.
Stddev	63.	75.
%RSD	.22772	.16693

#1	27653.	44724.
#2	27722.	44872.
#3	27779.	44775.



Approved: October 21, 2011

Emin D. Long

Sample Name: L1110034348 Acquired: 10/20/2011 14:44:55 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00711	226.95	.16862	.04691	3.5258	.02577	41.154
Stddev	.00042	.33	.00047	.00532	.0306	.00007	.097
%RSD	5.9237	.14395	.27793	11.331	.86739	.28541	.23584

#1	.00670	227.18	.16913	.04771	3.5171	.02570	41.264
#2	.00710	226.58	.16852	.04123	3.5005	.02584	41.115
#3	.00754	227.10	.16820	.05177	3.5598	.02577	41.082

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F -.00056	.39598	.44525	.26791	656.48	10.515	.14873
Stddev	.00015	.00075	.00351	.00310	5.43	.019	.00080
%RSD	26.930	.18991	.78817	1.1571	.82668	.18131	.53783

#1	-.00066	.39629	.44347	.27055	657.46	10.536	.14955
#2	-.00063	.39653	.44929	.26867	650.63	10.498	.14871
#3	-.00039	.39513	.44298	.26450	661.35	10.512	.14795

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	16.200						
Low Limit	-.00050						

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	25.030	38.899	.01007	2.8441	.36453	3.4186	.54058
Stddev	.077	.307	.00016	.0128	.00223	.0272	.00183
%RSD	.30807	.78890	1.5779	.45124	.61236	.79550	.33816

#1	25.036	38.862	.01023	2.8540	.36586	3.4241	.53863
#2	24.950	38.612	.01007	2.8487	.36576	3.4425	.54226
#3	25.104	39.223	.00991	2.8296	.36195	3.3890	.54084

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011

Emin D. Long

Sample Name: L1110034348 Acquired: 10/20/2011 14:44:55 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 32.335	F 198.41	F -8484.5	.00247	.02832	F 323.78	.01161
Stddev	11.598	.61	18.8	.00103	.00264	1.26	.00009
%RSD	35.868	.30879	.22166	41.608	9.3097	.38816	.81135

#1	22.677	198.90	-8504.7	.00278	.03078	324.33	.01169
#2	29.129	198.61	-8481.2	.00330	.02864	324.66	.01162
#3	45.198	197.73	-8467.5	.00132	.02554	322.34	.01151

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-0.0400	-0.0400	-0.0400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.34976	.14339	.04707	.67065	.74450	.12916
Stddev	.00101	.00071	.00182	.00212	.00162	.00060
%RSD	.28781	.49853	3.8669	.31659	.21818	.46259

#1	.35090	.14421	.04879	.66832	.74550	.12875
#2	.34940	.14286	.04724	.67247	.74538	.12889
#3	.34899	.14311	.04517	.67118	.74263	.12984

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	27405.	46982.
Stddev	51.	474.
%RSD	.18772	1.0079

#1	27463.	47014.
#2	27385.	47439.
#3	27366.	46494.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110034401 Acquired: 10/20/2011 14:48:29 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00505	240.02	.14875	.05067	2.7211	.01743	64.865
Stddev	.00046	.27	.00054	.00514	.0042	.00006	.028
%RSD	9.0340	.11260	.36587	10.141	.15400	.33824	.04282

#1	.00515	239.71	.14812	.05279	2.7170	.01740	64.834
#2	.00455	240.17	.14903	.05442	2.7208	.01740	64.872
#3	.00544	240.19	.14910	.04481	2.7254	.01750	64.888

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00902	.12048	.33740	.23378	361.43	20.596	.15881
Stddev	.00003	.00044	.00141	.00244	4.75	.033	.00052
%RSD	.29731	.36631	.41686	1.0421	1.3133	.15881	.32751

#1	.00905	.12005	.33646	.23114	363.42	20.581	.15826
#2	.00900	.12045	.33673	.23426	364.86	20.633	.15930
#3	.00901	.12093	.33902	.23594	356.01	20.573	.15887

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	23.643	12.198	.00989	.80208	.20748	7.8317	.57772
Stddev	.042	.011	.00006	.00297	.00089	.0074	.00189
%RSD	.17805	.08920	.61961	.37048	.42761	.09449	.32733

#1	23.596	12.186	.00994	.80034	.20729	7.8247	.57561
#2	23.677	12.207	.00991	.80551	.20670	7.8309	.57830
#3	23.656	12.200	.00983	.80038	.20845	7.8395	.57926

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011

Emin D. Long

Sample Name: L1110034401 Acquired: 10/20/2011 14:48:29 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 45.809	F 421.80	F -19585.	.00398	.01469	F 285.56	.01360
Stddev	6.819	.80	54.	.00114	.00350	.65	.00039
%RSD	14.887	.19011	.27608	28.721	23.852	.22910	2.8791

#1	41.960	420.87	-19526.	.00428	.01634	285.04	.01360
#2	53.683	422.33	-19599.	.00494	.01707	285.35	.01399
#3	41.784	422.18	-19631.	.00272	.01067	286.29	.01320

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-.00400	-.00400	-.00400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.40332	.26180	.01985	.55029	1.6631	.17427
Stddev	.00038	.00050	.00108	.00354	.0075	.00147
%RSD	.09493	.19255	5.4508	.64283	.44842	.84148

#1	.40374	.26138	.02058	.54840	1.6567	.17337
#2	.40299	.26236	.02036	.54810	1.6713	.17348
#3	.40323	.26166	.01860	.55437	1.6613	.17596

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	27315.	46293.
Stddev	21.	304.
%RSD	.07825	.65676

#1	27307.	46147.
#2	27299.	46090.
#3	27339.	46643.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110034402 Acquired: 10/20/2011 14:51:48 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00492	240.19	.15587	.05224	2.8909	.01979	53.817
Stddev	.00040	.31	.00183	.00602	.0111	.00005	.140
%RSD	8.2129	.12980	1.1768	11.524	.38407	.23493	.26023

#1	.00529	240.20	.15798	.04656	2.8948	.01983	53.885
#2	.00449	239.87	.15492	.05160	2.8783	.01981	53.656
#3	.00498	240.49	.15470	.05855	2.8995	.01974	53.910

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00137	.16457	.39696	.21161	484.15	14.460	.15667
Stddev	.00006	.00149	.00251	.00341	6.22	.034	.00087
%RSD	4.6125	.90302	.63324	1.6092	1.2852	.23219	.55767

#1	.00144	.16594	.39771	.21484	477.74	14.427	.15567
#2	.00134	.16479	.39902	.21195	484.54	14.494	.15706
#3	.00133	.16299	.39416	.20805	490.16	14.459	.15728

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	22.715	16.116	.00858	1.1955	.22643	5.2390	.39576
Stddev	.135	.024	.00031	.0050	.00332	.0750	.00300
%RSD	.59446	.14823	3.5568	.41876	1.4658	1.4312	.75808

#1	22.565	16.089	.00890	1.1921	.22941	5.3137	.39916
#2	22.827	16.127	.00855	1.2013	.22701	5.2396	.39467
#3	22.753	16.133	.00830	1.1933	.22285	5.1637	.39346

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011

Emin D. Long

Sample Name: L1110034402 Acquired: 10/20/2011 14:51:48 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 37.889	F 270.54	F -11891.	.00098	.01684	F 344.30	.01214
Stddev	19.006	2.21	117.	.00219	.00097	4.35	.00009
%RSD	50.162	.81665	.98565	223.83	5.7773	1.2629	.73256

#1	59.345	272.73	-11999.	-.00061	.01589	348.53	.01204
#2	31.161	270.58	-11907.	.00348	.01681	344.52	.01221
#3	23.163	268.32	-11766.	.00007	.01783	339.85	.01217

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-.00400	-.00400	-.00400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.36382	.24086	.02708	.62902	.82622	.16454
Stddev	.00048	.00055	.00136	.00067	.00266	.00037
%RSD	.13173	.22745	5.0222	.10662	.32160	.22360

#1	.36430	.24026	.02586	.62843	.82863	.16426
#2	.36334	.24099	.02683	.62887	.82666	.16439
#3	.36384	.24133	.02855	.62975	.82337	.16495

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	27355.	45884.
Stddev	132.	278.
%RSD	.48184	.60690

#1	27223.	46190.
#2	27356.	45814.
#3	27486.	45646.



Approved: October 21, 2011

Emin D. Long

Sample Name: L1110034403 Acquired: 10/20/2011 14:55:06 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00645	209.44	.14867	.06531	1.9678	.01673	40.504
Stddev	.00027	.94	.00228	.00260	.0023	.00006	.116
%RSD	4.2550	.45010	1.5358	3.9777	.11469	.37232	.28520

#1	.00638	208.62	.14822	.06731	1.9657	.01669	40.389
#2	.00621	209.24	.14665	.06237	1.9673	.01670	40.504
#3	.00675	210.47	.15115	.06625	1.9702	.01680	40.620

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00615	.16826	.41790	.22241	479.18	18.485	.16686
Stddev	.00008	.00091	.00372	.00293	6.82	.151	.00086
%RSD	1.3387	.54169	.89018	1.3160	1.4230	.81514	.51653

#1	.00624	.16811	.41379	.22441	475.45	18.409	.16599
#2	.00613	.16924	.41884	.22377	475.04	18.388	.16686
#3	.00607	.16743	.42105	.21905	487.05	18.659	.16772

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	21.327	15.948	.00973	.69885	.22206	8.0569	.67482
Stddev	.236	.103	.00012	.00556	.00070	.0223	.00292
%RSD	1.1079	.64442	1.2511	.79572	.31355	.27745	.43244

#1	21.121	15.869	.00966	.69632	.22210	8.0715	.67819
#2	21.274	15.910	.00965	.69501	.22273	8.0680	.67317
#3	21.585	16.064	.00987	.70523	.22134	8.0311	.67310

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110034403 Acquired: 10/20/2011 14:55:06 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 40.736	F 259.63	F -11907.	.00343	.01804	F 325.87	.01244
Stddev	7.603	.19	15.	.00045	.00058	.32	.00029
%RSD	18.665	.07220	.12915	13.133	3.2019	.09733	2.2955

#1	36.123	259.73	-11897.	.00327	.01842	325.78	.01271
#2	49.511	259.74	-11900.	.00308	.01738	325.60	.01214
#3	36.573	259.41	-11925.	.00394	.01833	326.22	.01247

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-0.0400	-0.0400	-0.0400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.28200	.35459	.02962	.65854	1.7512	.12916
Stddev	.00143	.00161	.00151	.00357	.0024	.00083
%RSD	.50605	.45490	5.0824	.54191	.13455	.64113

#1	.28118	.35437	.03023	.65450	1.7535	.12824
#2	.28116	.35310	.03072	.65989	1.7488	.12939
#3	.28364	.35630	.02790	.66124	1.7512	.12984

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	27272.	43522.
Stddev	59.	253.
%RSD	.21641	.58242

#1	27332.	43807.
#2	27270.	43436.
#3	27214.	43323.



Approved: October 21, 2011

Emin D. Long

L1110034404

Sample Name: ~~L1110034403PS~~ Acquired: 10/20/2011 14:58:23 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: ~~WG379368-01~~

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00804	203.13	.12990	.05743	1.8765	.01806	22.567
Stddev	.00023	.70	.00073	.00800	.0023	.00005	.027
%RSD	2.8169	.34293	.56440	13.926	.12195	.27027	.11780

#1	.00787	202.35	.13072	.05038	1.8789	.01808	22.537
#2	.00796	203.35	.12929	.05579	1.8763	.01801	22.584
#3	.00830	203.69	.12971	.06612	1.8743	.01810	22.581

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00008	.25839	.28998	.26316	591.86	9.1192	.17415
Stddev	.00007	.00070	.00225	.00206	10.30	.0403	.00030
%RSD	93.129	.26951	.77723	.78213	1.7403	.44156	.17028

#1	.00012	.25890	.29183	.26476	584.34	9.0764	.17404
#2	.00012	.25868	.29064	.26388	587.63	9.1249	.17448
#3	-.00001	.25760	.28747	.26084	603.60	9.1564	.17391

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	21.061	32.913	.01512	.77567	.27048	4.0237	.48760
Stddev	.050	.093	.00014	.00911	.00213	.0453	.00153
%RSD	.23694	.28273	.89539	1.1751	.78902	1.1257	.31389

#1	21.012	32.839	.01528	.78516	.27290	4.0719	.48802
#2	21.112	33.017	.01505	.76698	.26968	4.0171	.48590
#3	21.059	32.883	.01504	.77488	.26887	3.9820	.48887

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit



Approved: October 21, 2011
Emin D. Long

L1110034404

Sample Name: ~~L1110034403PS~~ Acquired: 10/20/2011 14:58:23 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment: ~~WG379368-01~~

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 33.914	F 156.98	F -7130.6	.00614	.02918	F 305.59	.00906
Stddev	7.265	.49	14.4	.00334	.00560	2.31	.00042
%RSD	21.423	.31224	.20183	54.327	19.195	.75585	4.6121

#1	26.958	157.54	-7142.6	.00987	.03427	308.18	.00870
#2	41.454	156.80	-7114.6	.00512	.03008	304.85	.00952
#3	33.329	156.61	-7134.5	.00344	.02318	303.75	.00897

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-.00400	-.00400	-.00400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.18040	.23636	.04122	.55097	1.1566	.11374
Stddev	.00076	.00172	.00036	.00210	.0014	.00032
%RSD	.42073	.72907	.87799	.38125	.11692	.27935

#1	.17953	.23453	.04081	.55295	1.1551	.11362
#2	.18081	.23796	.04145	.54876	1.1571	.11349
#3	.18087	.23658	.04141	.55118	1.1577	.11409

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	27085.	44622.
Stddev	48.	76.
%RSD	.17630	.17022

#1	27030.	44535.
#2	27111.	44674.
#3	27115.	44657.



Approved: October 21, 2011
<i>Emin D. Long</i>

L1110034404PS

Sample Name: ~~L1110034403SDL~~ Acquired: 10/20/2011 15:01:49 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: ~~5-~~ Custom ID2: Custom ID3:
Comment: ~~WG379368-02~~

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.19317	186.86	.30089	.97514	2.1532	.03985	25.057
Stddev	.00048	.12	.00045	.00300	.0016	.00003	.024
%RSD	.24855	.06478	.14872	.30734	.07575	.06959	.09514
#1	.19368	186.73	.30141	.97340	2.1515	.03983	25.030
#2	.19273	186.97	.30063	.97860	2.1533	.03988	25.073
#3	.19311	186.88	.30065	.97342	2.1547	.03985	25.069

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02303	.32345	.48826	.45801	545.80	32.511	.63065
Stddev	.00007	.00016	.00059	.00334	7.44	.113	.00339
%RSD	.30947	.04991	.12010	.72986	1.3625	.34650	.53823
#1	.02311	.32333	.48850	.46186	538.63	32.607	.63445
#2	.02300	.32338	.48760	.45638	545.30	32.540	.62957
#3	.02297	.32363	.48869	.45580	553.48	32.387	.62792

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	23.394	29.570	.48189	25.257	.47517	3.6360	.65112
Stddev	.098	.256	.00054	.109	.00141	.0090	.00531
%RSD	.41979	.86444	.11171	.43042	.29745	.24692	.81500
#1	23.282	29.357	.48249	25.373	.47357	3.6349	.65724
#2	23.461	29.498	.48172	25.240	.47627	3.6455	.64838
#3	23.440	29.853	.48145	25.158	.47566	3.6276	.64775

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit



Approved: October 21, 2011
Emin D. Long

L1110034404PS

Sample Name: ~~L1110034403SDL~~ Acquired: 10/20/2011 15:01:49 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: ~~5-~~ Custom ID2: Custom ID3:
Comment: ~~WG379368-02~~

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 38.591	F 147.94	F -6576.1	.55121	.20536	F 591.81	.00981
Stddev	5.177	.11	6.2	.00073	.00196	.97	.00022
%RSD	13.415	.07501	.09366	.13203	.95615	.16337	2.2383

#1	44.568	148.06	-6583.2	.55099	.20732	591.05	.00977
#2	35.708	147.84	-6572.8	.55202	.20339	592.90	.01005
#3	35.498	147.92	-6572.3	.55062	.20536	591.49	.00961

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-.00400	-.00400	-.00400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.64899	.67533	.25857	.97637	1.4837	.10257
Stddev	.00440	.00189	.00075	.00308	.0062	.00051
%RSD	.67724	.28045	.29065	.31549	.41649	.49711

#1	.65302	.67746	.25870	.97642	1.4906	.10199
#2	.64964	.67471	.25924	.97942	1.4815	.10276
#3	.64430	.67383	.25776	.97326	1.4789	.10296

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	26977.	44111.
Stddev	64.	93.
%RSD	.23563	.21098

#1	27050.	44208.
#2	26938.	44103.
#3	26942.	44022.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: CCV Acquired: 10/20/2011 15:06:26 Type: QC
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.40738	9.9987	.41988	.54043	.97631	.05173	9.8626
Stddev	.00231	.0573	.00375	.00227	.00226	.00019	.0690
%RSD	.56659	.57318	.89207	.42034	.23118	.36087	.69931

#1	.40984	9.9789	.42173	.53892	.97874	.05184	9.8977
#2	.40703	9.9539	.42234	.54304	.97592	.05184	9.7832
#3	.40526	10.063	.41557	.53932	.97428	.05151	9.9070

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 Value
 Range

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05197	.20937	.50374	.52588	3.7803	52.725	1.0134
Stddev	.00022	.00088	.00328	.00373	.0070	.168	.0031
%RSD	.42704	.42264	.65091	.70838	.18411	.31899	.30185

#1	.05218	.20972	.50676	.52777	3.7874	52.825	1.0167
#2	.05200	.21004	.50422	.52828	3.7735	52.531	1.0107
#3	.05174	.20837	.50025	.52158	3.7800	52.819	1.0128

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 Value
 Range

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.116	.49984	1.0318	51.570	.54293	10.769	.50178
Stddev	.066	.00208	.0057	.192	.00469	.081	.00250
%RSD	.65450	.41525	.55114	.37186	.86464	.75279	.49756

#1	10.153	.50155	1.0349	51.724	.54599	10.828	.50187
#2	10.040	.49753	1.0353	51.632	.54527	10.802	.50423
#3	10.156	.50044	1.0253	51.355	.53753	10.676	.49924

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 Value
 Range



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: CCV Acquired: 10/20/2011 15:06:26 Type: QC
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 18.918	10.835	F 14.292	1.2925	.41332	F 5.9684	1.0801
Stddev	17.092	.058	2.520	.0114	.00259	.1204	.0089
%RSD	90.351	.53298	17.629	.88032	.62564	2.0175	.82229

#1	2.7526	10.891	12.040	1.3026	.41319	5.8430	1.0872
#2	36.806	10.836	17.013	1.2947	.41597	5.9793	1.0831
#3	17.194	10.776	13.822	1.2802	.41081	6.0831	1.0702

Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
Value	10.000		10.000			5.0000	
Range	10.000%		10.000%			10.000%	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0664	1.0284	.53766	1.0526	1.0001	1.0446
Stddev	.0042	.0028	.00288	.0047	.0021	.0107
%RSD	.39582	.27572	.53584	.44927	.21375	1.0201

#1	1.0681	1.0306	.53956	1.0549	1.0009	1.0529
#2	1.0616	1.0252	.53908	1.0558	1.0018	1.0484
#3	1.0695	1.0294	.53435	1.0472	.99771	1.0326

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	26205.	42888.
Stddev	79.	310.
%RSD	.30258	.72287

#1	26157.	42786.
#2	26163.	43237.
#3	26297.	42643.



Approved: October 21, 2011
<i>Erin D. Long</i>

Sample Name: CCB Acquired: 10/20/2011 15:09:38 Type: Blank
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00038	-.01624	-.00040	-.00082	-.00050	-.00001	-.00102
Stddev	.00045	.00478	.00093	.00010	.00005	.00002	.00760
%RSD	119.81	29.461	232.73	11.805	10.394	256.08	742.37

#1	.00087	-.01961	-.00123	-.00085	-.00048	-.00002	.00365
#2	.00028	-.01076	-.00057	-.00071	-.00046	.00001	.00307
#3	-.00002	-.01835	.00060	-.00089	-.00056	-.00002	-.00979

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00003	-.00014	-.00019	-.00079	-.00142	-.13809	-.00447
Stddev	.00010	.00012	.00040	.00018	.00408	.01881	.00167
%RSD	387.57	79.905	206.88	23.242	286.49	13.624	37.398

#1	.00005	-.00019	-.00048	-.00100	.00226	-.13643	-.00587
#2	.00001	-.00023	.00026	-.00065	-.00581	-.12016	-.00262
#3	-.00014	-.00001	-.00037	-.00072	-.00072	-.15768	-.00493

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00470	-.00019	-.00176	-.01770	-.00097	-.00604	-.00093
Stddev	.00556	.00020	.00007	.01065	.00029	.00355	.00015
%RSD	118.45	104.86	3.8363	60.183	29.370	58.800	16.561

#1	.00173	-.00042	-.00169	-.01033	-.00066	-.00282	-.00103
#2	.01111	-.00009	-.00176	-.01286	-.00106	-.00545	-.00075
#3	.00124	-.00006	-.00182	-.02991	-.00121	-.00985	-.00101

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: CCB Acquired: 10/20/2011 15:09:38 Type: Blank
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 23.224	F -.10349	F 6.4963	-.00220	.00002	-.17284	-.00236
Stddev	4.366	.01833	2.3078	.00077	.00030	.04321	.00029
%RSD	18.798	17.715	35.525	35.166	1854.4	25.000	12.120

#1	18.886	-.12258	8.9805	-.00295	-.00032	-.12873	-.00214
#2	27.617	-.08602	6.0893	-.00224	.00014	-.17469	-.00268
#3	23.170	-.10189	4.4191	-.00141	.00023	-.21509	-.00227

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.01000	.01000	.01000				
Low Limit	-.01000	-.01000	-.01000				

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00030	-.00029	-.00111	-.00004	-.00176	.00508
Stddev	.00001	.00026	.00047	.00018	.00003	.00059
%RSD	2.7893	89.370	42.359	407.80	1.9109	11.556

#1	-.00031	-.00046	-.00093	.00007	-.00180	.00450
#2	-.00030	.00001	-.00164	.00005	-.00174	.00507
#3	-.00030	-.00042	-.00076	-.00026	-.00175	.00567

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	27308.	41646.
Stddev	29.	195.
%RSD	.10538	.46716

#1	27275.	41452.
#2	27319.	41841.
#3	27330.	41646.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110034404SDL Acquired: 10/20/2011 15:13:12 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: 5 Custom ID2: Custom ID3:
 Comment: WG379368-02

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00196	42.094	.02865	.01437	.38520	.00376	4.6791
Stddev	.00010	.115	.00057	.00049	.00073	.00001	.0315
%RSD	5.3199	.27335	1.9742	3.4085	.18897	.25693	.67237

#1	.00190	42.203	.02861	.01387	.38598	.00377	4.7147
#2	.00209	42.105	.02923	.01484	.38455	.00376	4.6677
#3	.00191	41.974	.02810	.01441	.38506	.00375	4.6550

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00007	.05664	.06104	.05661	131.86	1.7674	.03245
Stddev	.00001	.00010	.00035	.00038	.41	.0077	.00103
%RSD	17.863	.17570	.57357	.66484	.31075	.43356	3.1665

#1	-.00007	.05654	.06143	.05637	132.32	1.7762	.03149
#2	-.00005	.05664	.06075	.05642	131.55	1.7635	.03232
#3	-.00008	.05674	.06094	.05704	131.71	1.7625	.03353

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.6276	7.1113	.00145	.15437	.05941	.87421	.11027
Stddev	.0176	.0207	.00013	.00522	.00019	.00510	.00049
%RSD	.38152	.29111	9.0920	3.3843	.31240	.58363	.44877

#1	4.6462	7.1305	.00131	.16041	.05941	.86846	.10992
#2	4.6254	7.1140	.00150	.15125	.05923	.87595	.11084
#3	4.6111	7.0894	.00156	.15147	.05960	.87821	.11006

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011

Emin D. Long

Sample Name: L1110034404SDL Acquired: 10/20/2011 15:13:12 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: 5 Custom ID2: Custom ID3:
 Comment: WG379368-02

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 22.430	F 34.604	F -1565.7	-0.0205	.00362	73.390	-0.00076
Stddev	16.853	.270	10.2	.00198	.00158	.309	.00036
%RSD	75.135	.78126	.64852	96.758	43.732	.42036	47.155

#1	23.180	34.297	-1557.0	-0.0023	.00420	73.035	-0.0069
#2	38.896	34.710	-1563.2	-0.0175	.00483	73.541	-0.0115
#3	5.2151	34.805	-1576.9	-0.0416	.00183	73.594	-0.0044

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000	9.0000	9.0000				
Low Limit	-0.0400	-0.0400	-0.0400				

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.03701	.04965	.01105	.11493	.25438	.02482
Stddev	.00015	.00044	.00114	.00064	.00039	.00025
%RSD	.39215	.89006	10.273	.55463	.15468	1.0266

#1	.03708	.04914	.00986	.11477	.25454	.02455
#2	.03710	.04995	.01212	.11439	.25393	.02486
#3	.03684	.04986	.01118	.11564	.25466	.02505

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	27800.	43582.
Stddev	102.	132.
%RSD	.36823	.30293

#1	27877.	43707.
#2	27839.	43594.
#3	27684.	43444.



Approved: October 21, 2011

Emin D. Long

Sample Name: L1110034405 Acquired: 10/20/2011 15:16:30 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00602	263.06	.17215	.06312	1.7698	.02101	37.303
Stddev	.00054	.81	.00102	.00425	.0066	.00017	.037
%RSD	8.9289	.30815	.59072	6.7279	.37145	.80588	.09925

#1	.00548	262.58	.17326	.05824	1.7744	.02118	37.329
#2	.00604	262.59	.17127	.06515	1.7727	.02101	37.260
#3	.00655	263.99	.17191	.06596	1.7623	.02084	37.319

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00470	.33066	.32551	.30576	566.34	19.624	.24642
Stddev	.00021	.00062	.00250	.00143	7.31	.040	.00119
%RSD	4.5303	.18641	.76885	.46667	1.2905	.20173	.48132

#1	.00493	.33113	.32840	.30728	557.94	19.589	.24726
#2	.00451	.33088	.32415	.30555	571.24	19.616	.24694
#3	.00466	.32996	.32398	.30445	569.83	19.667	.24506

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	36.278	22.021	.01232	1.0152	.38125	5.1938	.63640
Stddev	.275	.065	.00012	.0014	.00191	.0230	.00338
%RSD	.75836	.29741	.97331	.14214	.50061	.44291	.53047

#1	35.962	21.952	.01230	1.0137	.38295	5.2143	.63771
#2	36.408	22.029	.01221	1.0166	.38160	5.1982	.63893
#3	36.464	22.082	.01245	1.0151	.37919	5.1689	.63257

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011

Emin D. Long

Sample Name: L1110034405 Acquired: 10/20/2011 15:16:30 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 43.582	F 257.61	F -12024.	.00438	.01940	F 264.94	.01235
Stddev	1.311	.56	35.	.00136	.00161	.39	.00030
%RSD	3.0091	.21624	.29278	31.130	8.3065	.14861	2.3975

#1	43.744	257.09	-11992.	.00564	.01756	265.39	.01269
#2	42.197	258.19	-12062.	.00459	.02009	264.80	.01225
#3	44.805	257.54	-12020.	.00293	.02056	264.64	.01212

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-0.0400	-0.0400	-0.0400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.28708	.11944	.03018	.52539	1.6076	.11878
Stddev	.00082	.00066	.00161	.00190	.0027	.00036
%RSD	.28523	.55000	5.3351	.36174	.16501	.30187

#1	.28685	.11888	.03153	.52758	1.6073	.11840
#2	.28640	.11928	.03063	.52444	1.6104	.11883
#3	.28799	.12016	.02840	.52416	1.6051	.11911

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	26873.	45136.
Stddev	130.	238.
%RSD	.48274	.52779

#1	26739.	45376.
#2	26883.	45134.
#3	26998.	44899.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110034406 Acquired: 10/20/2011 15:19:49 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00676	243.17	.19325	.05780	1.2896	.02460	27.105
Stddev	.00003	.89	.00118	.00663	.0051	.00011	.129
%RSD	.45390	.36412	.61147	11.476	.39249	.43067	.47626

#1	.00679	242.22	.19460	.05063	1.2839	.02468	26.962
#2	.00678	243.33	.19271	.06372	1.2911	.02448	27.140
#3	.00673	243.97	.19243	.05906	1.2936	.02465	27.214

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F -.00147	.41234	.39658	.31265	732.13	12.048	.23197
Stddev	.00005	.00116	.00262	.00720	11.59	.016	.00046
%RSD	3.7471	.28151	.66097	2.3029	1.5827	.13654	.19724

#1	-.00141	.41160	.39861	.32031	718.77	12.043	.23147
#2	-.00151	.41176	.39362	.31162	738.10	12.034	.23236
#3	-.00148	.41368	.39751	.30602	739.51	12.066	.23209

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	16.200						
Low Limit	-.00050						

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	33.186	22.905	.01307	1.3694	.38854	3.8540	.52904
Stddev	.165	.092	.00026	.0054	.00315	.0138	.00052
%RSD	.49595	.40045	2.0216	.39674	.81199	.35924	.09817

#1	33.004	22.804	.01337	1.3663	.38950	3.8604	.52894
#2	33.229	22.928	.01288	1.3663	.38502	3.8381	.52858
#3	33.325	22.984	.01295	1.3757	.39110	3.8634	.52960

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110034406 Acquired: 10/20/2011 15:19:49 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 26.446	F 168.22	F -7623.7	.00564	.01607	F 302.33	.01124
Stddev	15.243	.11	2.5	.00225	.00055	1.24	.00094
%RSD	57.637	.06621	.03275	39.949	3.4021	.40902	8.3321

#1	8.8452	168.33	-7626.5	.00360	.01556	302.31	.01204
#2	35.210	168.11	-7622.0	.00526	.01665	303.58	.01147
#3	35.283	168.23	-7622.4	.00805	.01600	301.11	.01021

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-0.0400	-0.0400	-0.0400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.21330	.11861	.03300	.51450	1.0176	.09994
Stddev	.00037	.00063	.00165	.00285	.0014	.00049
%RSD	.17521	.53289	5.0087	.55429	.13906	.48717

#1	.21287	.11793	.03464	.51521	1.0169	.09952
#2	.21353	.11872	.03134	.51136	1.0166	.09983
#3	.21350	.11918	.03300	.51692	1.0192	.10047

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	26796.	44709.
Stddev	68.	106.
%RSD	.25376	.23819

#1	26768.	44758.
#2	26874.	44587.
#3	26747.	44782.



Approved: October 21, 2011

Emin D. Long

Sample Name: L1110034407 Acquired: 10/20/2011 15:23:05 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00607	210.68	.16481	.04245	2.1160	.02088	56.789
Stddev	.00033	.71	.00134	.00517	.0124	.00017	.247
%RSD	5.3947	.33819	.81177	12.189	.58849	.82831	.43412

#1	.00621	210.01	.16635	.04239	2.1017	.02073	56.526
#2	.00569	210.61	.16390	.03730	2.1248	.02084	56.824
#3	.00630	211.43	.16419	.04765	2.1214	.02107	57.016

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00606	.26942	.31519	.48744	531.51	16.365	.23306
Stddev	.00006	.00073	.00128	.00070	9.54	.096	.00128
%RSD	1.0264	.27238	.40753	.14393	1.7951	.58534	.54741

#1	.00602	.26990	.31429	.48789	528.96	16.301	.23236
#2	.00613	.26858	.31461	.48780	523.50	16.319	.23229
#3	.00603	.26979	.31666	.48663	542.06	16.475	.23454

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	47.380	23.424	.00931	.64181	.45078	6.5865	.59656
Stddev	.369	.100	.00033	.00593	.00052	.0274	.00224
%RSD	.77794	.42584	3.5125	.92332	.11522	.41549	.37554

#1	47.094	23.337	.00967	.63530	.45101	6.6069	.59751
#2	47.251	23.402	.00903	.64687	.45114	6.5973	.59400
#3	47.796	23.533	.00923	.64327	.45019	6.5554	.59817

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011

Emin D. Long

Sample Name: L1110034407 Acquired: 10/20/2011 15:23:05 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 38.909	F 264.23	F -11285.	.00628	.01943	F 339.42	.01433
Stddev	10.164	.39	38.	.00091	.00118	1.37	.00053
%RSD	26.123	.14805	.33564	14.557	6.0749	.40384	3.7105

#1	28.091	264.62	-11328.	.00621	.01899	340.54	.01398
#2	48.261	263.84	-11263.	.00540	.01853	337.89	.01408
#3	40.376	264.22	-11262.	.00723	.02076	339.82	.01495

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-.00400	-.00400	-.00400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.29982	.10980	.02879	.41558	1.6539	.09775
Stddev	.00093	.00113	.00114	.00285	.0069	.00118
%RSD	.31121	1.0278	3.9438	.68601	.41651	1.2024

#1	.29919	.10863	.02904	.41328	1.6511	.09686
#2	.29939	.10990	.02755	.41469	1.6488	.09730
#3	.30089	.11088	.02978	.41877	1.6617	.09908

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	26771.	46480.
Stddev	121.	298.
%RSD	.45054	.64064

#1	26816.	46387.
#2	26862.	46813.
#3	26634.	46240.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110034408 Acquired: 10/20/2011 15:26:23 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00788	259.04	.23473	.06946	2.4177	.02172	52.171
Stddev	.00013	1.26	.00173	.00675	.0216	.00002	.384
%RSD	1.6196	.48473	.73722	9.7122	.89397	.10361	.73695

#1	.00773	259.72	.23386	.06248	2.4356	.02174	52.475
#2	.00793	259.80	.23360	.06996	2.4238	.02171	52.300
#3	.00797	257.59	.23672	.07594	2.3937	.02169	51.739

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00191	.38408	.31824	.40649	633.63	20.167	.30616
Stddev	.00011	.00073	.00327	.00127	4.04	.052	.00326
%RSD	5.5615	.18983	1.0264	.31150	.63836	.25787	1.0659

#1	.00202	.38325	.32178	.40573	629.11	20.223	.30959
#2	.00181	.38463	.31758	.40796	634.87	20.120	.30581
#3	.00190	.38435	.31535	.40579	636.90	20.158	.30309

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	47.535	37.967	.01116	.92835	.51442	5.5712	.50843
Stddev	.159	.218	.00018	.00842	.00088	.0076	.00142
%RSD	.33496	.57383	1.6105	.90645	.17150	.13657	.27884

#1	47.366	37.738	.01103	.93392	.51354	5.5626	.50852
#2	47.556	38.171	.01108	.93246	.51441	5.5737	.50980
#3	47.682	37.992	.01136	.91867	.51531	5.5772	.50697

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110034408 Acquired: 10/20/2011 15:26:23 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 28.003	F 205.70	F -8276.8	.00300	.02514	F 287.48	.01114
Stddev	10.420	.67	20.2	.00059	.00221	.23	.00021
%RSD	37.209	.32532	.24345	19.653	8.7890	.07939	1.8608

#1	21.223	205.18	-8254.7	.00309	.02384	287.65	.01090
#2	40.000	205.47	-8281.8	.00237	.02769	287.22	.01127
#3	22.785	206.46	-8294.0	.00354	.02389	287.58	.01125

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-0.0400	-0.0400	-0.0400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.25953	.12096	.04596	.44620	1.2683	.09799
Stddev	.00111	.00116	.00196	.00170	.0059	.00021
%RSD	.42818	.95871	4.2741	.38099	.46436	.21645

#1	.26060	.12219	.04779	.44812	1.2615	.09814
#2	.25960	.12080	.04388	.44486	1.2713	.09775
#3	.25839	.11989	.04621	.44563	1.2720	.09809

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	27467.	44807.
Stddev	58.	408.
%RSD	.21032	.90984

#1	27406.	44399.
#2	27475.	44809.
#3	27521.	45214.



Approved: October 21, 2011

Emin D. Long

Sample Name: L1110034409 Acquired: 10/20/2011 15:29:48 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00595	223.74	.19069	.06397	1.8025	.02246	129.13
Stddev	.00022	.27	.00051	.00222	.0047	.00003	.05
%RSD	3.7276	.12183	.26544	3.4656	.25962	.14761	.03740

#1	.00574	223.73	.19053	.06214	1.7982	.02246	129.08
#2	.00619	223.48	.19028	.06334	1.8075	.02243	129.17
#3	.00593	224.02	.19125	.06644	1.8017	.02250	129.15

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00011	.24855	.49485	.22271	616.61	12.655	.16941
Stddev	.00003	.00077	.00274	.00437	2.79	.008	.00172
%RSD	26.775	.31060	.55432	1.9629	.45301	.06574	1.0177

#1	.00010	.24769	.49794	.22709	613.61	12.647	.16745
#2	.00014	.24877	.49270	.22270	617.10	12.664	.17069
#3	.00008	.24918	.49392	.21835	619.13	12.654	.17008

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	25.005	18.074	.01287	2.1594	.23621	4.1449	.52570
Stddev	.061	.022	.00013	.0150	.00105	.0212	.00206
%RSD	.24525	.11988	1.0485	.69265	.44299	.51084	.39147

#1	24.940	18.058	.01276	2.1421	.23515	4.1339	.52796
#2	25.062	18.065	.01302	2.1687	.23624	4.1315	.52520
#3	25.013	18.098	.01283	2.1673	.23724	4.1693	.52393

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110034409 Acquired: 10/20/2011 15:29:48 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 31.931	F 275.32	F -7955.4	.00369	.01857	F 282.22	.01258
Stddev	3.732	.52	28.5	.00295	.00120	1.12	.00026
%RSD	11.686	.18896	.35824	79.965	6.4579	.39722	2.0290

#1	36.122	274.72	-7973.5	.00306	.01754	281.83	.01287
#2	28.968	275.63	-7970.1	.00691	.01829	281.34	.01241
#3	30.705	275.62	-7922.5	.00111	.01989	283.48	.01246

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-.00400	-.00400	-.00400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.79275	.23594	.03273	.76653	.78939	.16107
Stddev	.00331	.00094	.00118	.00240	.00136	.00057
%RSD	.41718	.39896	3.6200	.31333	.17266	.35272

#1	.79088	.23497	.03359	.76514	.79022	.16060
#2	.79081	.23685	.03323	.76930	.79014	.16171
#3	.79657	.23600	.03138	.76514	.78782	.16091

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	26631.	44559.
Stddev	88.	236.
%RSD	.33185	.52891

#1	26719.	44316.
#2	26634.	44575.
#3	26542.	44786.



Approved: October 21, 2011

Emin D. Long

Sample Name: L1110034410 Acquired: 10/20/2011 15:33:04 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00746	216.88	.21432	.06829	2.3176	.02126	88.517
Stddev	.00014	.68	.00036	.00195	.0065	.00008	.171
%RSD	1.8997	.31562	.16687	2.8588	.28176	.37181	.19278

#1	.00755	216.14	.21470	.06667	2.3234	.02117	88.328
#2	.00753	217.49	.21428	.07046	2.3105	.02129	88.564
#3	.00730	217.02	.21398	.06775	2.3189	.02132	88.660

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01025	.24317	.38495	.33973	586.86	20.170	.18892
Stddev	.00009	.00053	.00226	.00310	9.41	.055	.00062
%RSD	.92651	.21908	.58823	.91251	1.6034	.27446	.32903

#1	.01021	.24262	.38244	.34311	576.15	20.117	.18945
#2	.01018	.24320	.38560	.33703	593.80	20.228	.18907
#3	.01036	.24369	.38682	.33904	590.64	20.167	.18823

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	26.882	22.325	.03292	.87288	.28694	6.8331	1.2062
Stddev	.075	.046	.00025	.00496	.00204	.0278	.0046
%RSD	.28054	.20589	.75665	.56821	.71222	.40661	.38026

#1	26.813	22.275	.03313	.87393	.28525	6.8061	1.2087
#2	26.870	22.365	.03265	.87723	.28636	6.8318	1.2009
#3	26.962	22.335	.03299	.86748	.28921	6.8616	1.2089

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110034410 Acquired: 10/20/2011 15:33:04 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 36.398	F 531.17	F -24289.	.01023	.01893	F 296.12	.02361
Stddev	2.063	1.13	33.	.00110	.00163	1.87	.00012
%RSD	5.6679	.21223	.13466	10.792	8.6134	.63167	.50634

#1	34.854	530.69	-24281.	.00902	.01781	293.96	.02350
#2	38.741	530.36	-24260.	.01046	.01818	297.15	.02359
#3	35.600	532.46	-24325.	.01119	.02080	297.25	.02373

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-0.0400	-0.0400	-0.0400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.58832	.43183	.03427	.65696	2.0162	.13822
Stddev	.00177	.00050	.00227	.00236	.0056	.00081
%RSD	.30070	.11517	6.6104	.35922	.27739	.58376

#1	.58716	.43240	.03316	.65439	2.0126	.13729
#2	.59036	.43161	.03278	.65748	2.0133	.13857
#3	.58745	.43148	.03688	.65902	2.0226	.13879

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	26703.	44499.
Stddev	86.	68.
%RSD	.32052	.15274

#1	26790.	44576.
#2	26703.	44474.
#3	26618.	44447.



Approved: October 21, 2011

Emin D. Long

Sample Name: L1110034411 Acquired: 10/20/2011 15:36:21 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00731	178.58	.15415	.04831	2.1807	.01710	40.825
Stddev	.00016	1.04	.00017	.00198	.0067	.00005	.244
%RSD	2.1201	.58311	.10919	4.0895	.30925	.27146	.59750

#1	.00736	177.39	.15397	.04965	2.1744	.01705	40.543
#2	.00744	179.04	.15418	.04604	2.1878	.01711	40.957
#3	.00714	179.31	.15430	.04923	2.1799	.01715	40.974

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00870	.22767	.36325	.24991	468.96	13.956	.12809
Stddev	.00004	.00046	.00201	.00430	4.55	.014	.00077
%RSD	.44920	.20109	.55204	1.7202	.96919	.10320	.59969

#1	.00866	.22719	.36164	.24951	469.82	13.970	.12895
#2	.00874	.22769	.36262	.25440	464.05	13.957	.12748
#3	.00871	.22811	.36550	.24583	473.02	13.941	.12783

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	19.660	21.296	.01195	.60302	.22602	8.2529	.76881
Stddev	.215	.135	.00011	.00335	.00171	.0168	.00459
%RSD	1.0928	.63218	.94871	.55498	.75528	.20403	.59646

#1	19.413	21.143	.01190	.60008	.22414	8.2420	.76690
#2	19.757	21.352	.01186	.60666	.22747	8.2444	.77405
#3	19.809	21.394	.01208	.60233	.22644	8.2723	.76549

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011

Emin D. Long

Sample Name: L1110034411 Acquired: 10/20/2011 15:36:21 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 34.372	F 288.70	F -13479.	.00811	.02015	F 292.69	.01311
Stddev	9.658	.27	34.	.00081	.00373	1.87	.00035
%RSD	28.099	.09521	.24962	9.9669	18.523	.63967	2.6513

#1	45.228	288.39	-13513.	.00839	.02004	290.55	.01331
#2	26.731	288.86	-13480.	.00875	.01648	293.53	.01271
#3	31.158	288.86	-13445.	.00720	.02394	294.00	.01331

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-.00400	-.00400	-.00400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.28345	.26929	.03249	.65058	1.9157	.12710
Stddev	.00030	.00058	.00091	.00133	.0044	.00036
%RSD	.10719	.21440	2.7855	.20455	.22951	.28487

#1	.28313	.26862	.03338	.64913	1.9170	.12690
#2	.28348	.26969	.03157	.65084	1.9193	.12689
#3	.28374	.26955	.03254	.65175	1.9108	.12752

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	26478.	45025.
Stddev	68.	411.
%RSD	.25793	.91256

#1	26540.	45498.
#2	26491.	44821.
#3	26405.	44755.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110034412 Acquired: 10/20/2011 15:39:39 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00469	213.07	.13665	.05650	2.1509	.02019	77.638
Stddev	.00044	.45	.00124	.00386	.0011	.00008	.124
%RSD	9.3504	.21179	.90452	6.8377	.05100	.40945	.15968

#1	.00509	212.60	.13776	.05383	2.1505	.02018	77.503
#2	.00422	213.50	.13688	.06093	2.1500	.02011	77.747
#3	.00475	213.11	.13531	.05475	2.1521	.02027	77.663

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00803	.14293	.37502	.28276	425.01	16.965	.14675
Stddev	.00011	.00094	.00183	.00379	6.14	.015	.00066
%RSD	1.3339	.65780	.48795	1.3389	1.4455	.08557	.45135

#1	.00805	.14357	.37407	.28701	418.04	16.956	.14675
#2	.00813	.14338	.37386	.28155	429.65	16.982	.14741
#3	.00792	.14185	.37713	.27974	427.32	16.959	.14608

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	26.156	9.6332	.01016	1.0754	.24237	6.6716	.63230
Stddev	.076	.0234	.00007	.0060	.00092	.0297	.00368
%RSD	.29247	.24248	.70707	.55490	.37948	.44579	.58142

#1	26.071	9.6096	.01020	1.0733	.24338	6.7017	.63305
#2	26.219	9.6563	.01021	1.0821	.24214	6.6709	.63554
#3	26.178	9.6336	.01008	1.0707	.24158	6.6422	.62830

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110034412 Acquired: 10/20/2011 15:39:39 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 50.054	F 405.24	F -17988.	.00643	.01304	F 312.00	.01347
Stddev	11.148	1.81	105.	.00249	.00206	2.06	.00016
%RSD	22.273	.44683	.58093	38.773	15.756	.65923	1.1880

#1	49.698	406.98	-18087.	.00920	.01521	312.28	.01329
#2	39.089	405.37	-17999.	.00438	.01113	313.90	.01360
#3	61.377	403.37	-17878.	.00570	.01279	309.82	.01353

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-0.0400	-0.0400	-0.0400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.54802	.17444	.01863	.53881	2.6121	.14643
Stddev	.00101	.00133	.00101	.00344	.0100	.00134
%RSD	.18465	.76052	5.4280	.63791	.38449	.91593

#1	.54893	.17330	.01800	.53714	2.6216	.14543
#2	.54820	.17590	.01809	.53652	2.6132	.14590
#3	.54693	.17414	.01980	.54276	2.6016	.14795

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	26974.	43966.
Stddev	58.	131.
%RSD	.21360	.29859

#1	26917.	44060.
#2	26973.	43816.
#3	27032.	44023.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110034413 Acquired: 10/20/2011 15:42:58 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00568	196.51	.13915	.05139	1.9432	.01608	33.687
Stddev	.00024	.32	.00036	.00158	.0035	.00002	.043
%RSD	4.3075	.16070	.25993	3.0812	.18173	.13731	.12717

#1	.00595	196.86	.13873	.05008	1.9460	.01610	33.733
#2	.00562	196.24	.13932	.05315	1.9393	.01606	33.648
#3	.00547	196.44	.13939	.05093	1.9444	.01609	33.679

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00511	.19200	.26841	.21289	422.33	12.766	.16745
Stddev	.00007	.00040	.00132	.00158	1.40	.021	.00121
%RSD	1.4184	.20781	.49272	.74293	.33246	.16832	.72153

#1	.00516	.19154	.26875	.21380	423.63	12.757	.16883
#2	.00513	.19221	.26695	.21381	422.53	12.791	.16662
#3	.00502	.19226	.26952	.21107	420.84	12.751	.16689

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	20.754	20.722	.01173	.83904	.24378	3.8060	.60054
Stddev	.020	.014	.00012	.00470	.00151	.0181	.00015
%RSD	.09726	.06741	1.0503	.55972	.61813	.47507	.02441

#1	20.733	20.733	.01172	.84251	.24205	3.7853	.60056
#2	20.755	20.707	.01186	.83370	.24482	3.8135	.60039
#3	20.773	20.728	.01162	.84091	.24446	3.8190	.60068

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110034413 Acquired: 10/20/2011 15:42:58 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 27.106	F 190.83	F -8506.7	.00340	.01559	F 287.06	.00996
Stddev	4.603	.39	37.9	.00108	.00357	1.20	.00031
%RSD	16.983	.20460	.44513	31.799	22.889	.41751	3.1557

#1	32.325	190.38	-8510.5	.00318	.01243	285.73	.00963
#2	23.625	191.03	-8542.5	.00245	.01946	288.05	.00999
#3	25.368	191.07	-8467.0	.00458	.01488	287.41	.01026

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-0.00400	-0.00400	-0.00400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.26737	.21654	.02799	.46113	1.2894	.11106
Stddev	.00132	.00112	.00066	.00112	.0029	.00033
%RSD	.49429	.51738	2.3481	.24339	.22804	.29876

#1	.26884	.21764	.02771	.46239	1.2896	.11139
#2	.26701	.21658	.02875	.46022	1.2922	.11108
#3	.26627	.21540	.02753	.46079	1.2864	.11072

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	27216.	43465.
Stddev	94.	70.
%RSD	.34455	.16144

#1	27114.	43529.
#2	27235.	43478.
#3	27298.	43390.



Approved: October 21, 2011

Emin D. Long

Sample Name: CCV Acquired: 10/20/2011 15:46:22 Type: QC
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.38978	9.7662	.40683	.52618	.95034	.05074	9.6223
Stddev	.00080	.0290	.00067	.00221	.00158	.00025	.0028
%RSD	.20649	.29746	.16433	.41919	.16651	.50229	.02868

#1	.38993	9.7858	.40645	.52764	.95161	.05089	9.6210
#2	.39050	9.7799	.40644	.52725	.94857	.05088	9.6203
#3	.38891	9.7328	.40760	.52364	.95084	.05044	9.6254

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05035	.20322	.49028	.50965	3.7129	52.697	.99953
Stddev	.00003	.00049	.00346	.00061	.0239	.114	.00166
%RSD	.06757	.24218	.70562	.12025	.64229	.21576	.16574

#1	.05036	.20323	.49225	.51023	3.7331	52.828	1.0003
#2	.05037	.20370	.49230	.50973	3.6866	52.631	1.0007
#3	.05031	.20272	.48629	.50901	3.7191	52.631	.99763

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.265	.49248	.99771	51.638	.53110	10.487	.48329
Stddev	.026	.00139	.00072	.163	.00063	.024	.00127
%RSD	.25820	.28163	.07192	.31475	.11895	.23088	.26287

#1	10.293	.49379	.99829	51.750	.53084	10.494	.48186
#2	10.262	.49103	.99793	51.451	.53183	10.508	.48377
#3	10.240	.49264	.99691	51.712	.53065	10.461	.48426

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: CCV Acquired: 10/20/2011 15:46:22 Type: QC
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 14.168	10.568	F 13.673	1.2524	.39982	5.4022	1.0579
Stddev	10.270	.017	5.369	.0048	.00462	.1116	.0021
%RSD	72.488	.15729	39.268	.37991	1.1563	2.0666	.19925

#1	8.6054	10.560	12.011	1.2513	.39632	5.4427	1.0572
#2	26.020	10.556	19.676	1.2576	.40506	5.2760	1.0602
#3	7.8793	10.587	9.3312	1.2482	.39807	5.4880	1.0562

Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	10.000		10.000				
Range	10.000%		10.000%				

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0448	1.0113	.52532	1.0225	.96402	1.0023
Stddev	.0012	.0031	.00336	.0067	.00039	.0107
%RSD	.11128	.30951	.63924	.65317	.04048	1.0641

#1	1.0457	1.0136	.52510	1.0276	.96363	1.0115
#2	1.0451	1.0077	.52879	1.0250	.96402	1.0049
#3	1.0435	1.0125	.52208	1.0150	.96441	.99060

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	26986.	41899.
Stddev	13.	85.
%RSD	.04715	.20401

#1	26980.	41808.
#2	26977.	41978.
#3	27000.	41912.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: CCB Acquired: 10/20/2011 15:49:32 Type: Blank
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00042	-.01097	-.00037	-.00087	-.00046	-.00002	-.00823
Stddev	.00026	.00569	.00082	.00032	.00019	.00001	.00315
%RSD	62.689	51.845	223.46	36.786	41.238	34.806	38.352

#1	.00061	-.00469	.00049	-.00116	-.00068	-.00002	-.00625
#2	.00012	-.01244	-.00115	-.00093	-.00035	-.00002	-.01186
#3	.00053	-.01578	-.00044	-.00053	-.00035	-.00001	-.00656

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00004	-.00024	-.00031	-.00086	.00038	-.15200	-.00435
Stddev	.00009	.00017	.00018	.00013	.00226	.02664	.00034
%RSD	199.32	72.173	59.790	14.527	588.14	17.528	7.7854

#1	.00000	-.00027	-.00018	-.00077	-.00222	-.16122	-.00472
#2	.00001	-.00005	-.00022	-.00081	.00149	-.17281	-.00425
#3	-.00014	-.00039	-.00052	-.00101	.00189	-.12198	-.00407

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.01038	-.00002	-.00176	-.01022	-.00112	-.00752	-.00164
Stddev	.00265	.00004	.00010	.00059	.00039	.00104	.00136
%RSD	25.493	266.10	5.8567	5.8123	34.920	13.779	82.434

#1	-.00756	-.00005	-.00169	-.00996	-.00154	-.00667	-.00034
#2	-.01079	-.00003	-.00188	-.00980	-.00076	-.00868	-.00304
#3	-.01280	.00003	-.00172	-.01090	-.00108	-.00723	-.00155

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011

Emin D. Long

Sample Name: CCB Acquired: 10/20/2011 15:49:32 Type: Blank
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 12.443	F -.09044	F .04309	-.00183	-.00175	-.14460	-.00262
Stddev	14.522	.01654	1.9109	.00082	.00200	.12085	.00020
%RSD	116.71	18.287	4434.2	44.488	114.14	83.576	7.7012

#1	20.083	-.10454	.20343	-.00247	-.00390	-.08896	-.00283
#2	-4.3041	-.07224	-1.9429	-.00211	-.00144	-.06158	-.00242
#3	21.549	-.09453	1.8687	-.00092	.00007	-.28324	-.00262

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.01000	.01000	.01000				
Low Limit	-.01000	-.01000	-.01000				

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00029	.00037	-.00056	-.00004	-.00169	.00564
Stddev	.00003	.00059	.00043	.00018	.00003	.00072
%RSD	11.081	161.09	77.759	422.83	1.4870	12.809

#1	-.00026	-.00032	-.00007	-.00011	-.00166	.00484
#2	-.00032	.00072	-.00069	.00016	-.00171	.00584
#3	-.00028	.00070	-.00091	-.00018	-.00168	.00625

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	27043.	43095.
Stddev	175.	74.
%RSD	.64856	.17215

#1	27019.	43057.
#2	26881.	43181.
#3	27229.	43049.



Approved: October 21, 2011

Emin D. Long

Sample Name: L1110034414 Acquired: 10/20/2011 15:53:05 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00841	253.39	.29950	.05860	1.3933	.02690	23.324
Stddev	.00074	1.98	.00204	.00768	.0037	.00016	.114
%RSD	8.8562	.78322	.68041	13.107	.26278	.59270	.48854

#1	.00776	251.96	.29896	.04974	1.3969	.02674	23.231
#2	.00825	252.57	.30176	.06303	1.3896	.02690	23.289
#3	.00922	255.66	.29779	.06305	1.3932	.02706	23.451

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F -.00268	.42232	.42891	.34159	828.06	10.514	.21261
Stddev	.00010	.00178	.00216	.00309	10.55	.086	.00006
%RSD	3.5431	.42073	.50342	.90435	1.2742	.81394	.02991

#1	-.00275	.42033	.42763	.34093	815.88	10.444	.21259
#2	-.00273	.42291	.42770	.33888	834.24	10.489	.21268
#3	-.00257	.42373	.43141	.34495	834.06	10.610	.21256

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	16.200						
Low Limit	-.00050						

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	22.042	27.293	.02653	.92856	.39122	3.4860	.71110
Stddev	.212	.180	.00028	.01094	.00054	.0161	.00276
%RSD	.96241	.65907	1.0485	1.1776	.13921	.46192	.38808

#1	21.824	27.134	.02633	.92501	.39059	3.4959	.70820
#2	22.053	27.256	.02642	.91984	.39155	3.4947	.71141
#3	22.248	27.488	.02685	.94083	.39152	3.4674	.71370

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110034414 Acquired: 10/20/2011 15:53:05 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 45.690	F 169.29	F -7815.0	.00990	.02606	F 287.01	.01250
Stddev	.623	.40	23.2	.00305	.00187	.33	.00026
%RSD	1.3640	.23424	.29653	30.792	7.1946	.11403	2.0911

#1	45.015	169.22	-7801.4	.01308	.02391	286.74	.01225
#2	45.814	168.94	-7801.8	.00701	.02689	286.93	.01247
#3	46.242	169.72	-7841.8	.00960	.02737	287.37	.01278

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-.00400	-.00400	-.00400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.19792	.17480	.04231	.68744	.91981	.13541
Stddev	.00162	.00106	.00203	.00498	.00666	.00208
%RSD	.81789	.60897	4.8030	.72511	.72362	1.5386

#1	.19705	.17403	.04010	.68170	.91248	.13313
#2	.19692	.17437	.04274	.68995	.92147	.13587
#3	.19979	.17602	.04409	.69068	.92548	.13722

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	26031.	44606.
Stddev	139.	277.
%RSD	.53461	.62186

#1	26192.	44918.
#2	25954.	44515.
#3	25948.	44386.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110034415 Acquired: 10/20/2011 15:56:21 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00270	154.06	.11056	.03318	1.5841	.01244	32.235
Stddev	.00022	.65	.00046	.00198	.0086	.00005	.132
%RSD	8.1281	.42232	.41504	5.9764	.54371	.41391	.41098

#1	.00291	153.43	.11068	.03366	1.5746	.01239	32.098
#2	.00271	154.04	.11005	.03100	1.5914	.01249	32.244
#3	.00247	154.73	.11094	.03488	1.5863	.01244	32.362

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00221	.23019	.23481	.13287	239.70	14.436	.12521
Stddev	.00003	.00063	.00114	.00170	2.42	.081	.00107
%RSD	1.4042	.27238	.48366	1.2806	1.0081	.56127	.85265

#1	.00225	.23038	.23457	.13460	237.91	14.351	.12573
#2	.00220	.23070	.23381	.13280	238.74	14.444	.12591
#3	.00219	.22949	.23605	.13120	242.45	14.512	.12398

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	18.093	14.476	.00673	1.4708	.16887	4.7971	.32851
Stddev	.133	.080	.00020	.0129	.00024	.0192	.00134
%RSD	.73274	.54948	2.9841	.87820	.14100	.40086	.40734

#1	18.043	14.397	.00669	1.4560	.16907	4.8073	.32702
#2	17.993	14.476	.00695	1.4767	.16861	4.8091	.32888
#3	18.243	14.556	.00655	1.4798	.16895	4.7749	.32962

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110034415 Acquired: 10/20/2011 15:56:21 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 38.483	F 154.95	F -6533.6	.00229	.01463	F 349.79	.00782
Stddev	14.627	.27	31.8	.00171	.00178	1.16	.00026
%RSD	38.008	.17343	.48679	74.945	12.159	.33108	3.3503

#1	27.936	155.25	-6552.5	.00178	.01517	350.63	.00774
#2	32.332	154.88	-6551.4	.00419	.01608	350.27	.00812
#3	55.181	154.73	-6496.9	.00088	.01265	348.47	.00761

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-0.0400	-0.0400	-0.0400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.25873	.26871	.02052	.48830	.55980	.10535
Stddev	.00142	.00172	.00063	.00154	.00133	.00064
%RSD	.54735	.64096	3.0648	.31501	.23679	.60313

#1	.25727	.26684	.02059	.48915	.56053	.10506
#2	.25883	.27022	.02111	.48652	.56061	.10491
#3	.26010	.26909	.01985	.48922	.55827	.10608

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	27104.	44044.
Stddev	29.	363.
%RSD	.10837	.82407

#1	27072.	43702.
#2	27130.	44425.
#3	27109.	44006.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110034416 Acquired: 10/20/2011 15:59:41 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00432	142.00	.14065	.03870	2.3069	.01458	32.593
Stddev	.00020	.53	.00140	.00085	.0042	.00007	.075
%RSD	4.6677	.37610	.99558	2.2073	.18050	.44821	.23115

#1	.00414	141.44	.14116	.03820	2.3116	.01455	32.521
#2	.00428	142.04	.13906	.03968	2.3055	.01454	32.587
#3	.00454	142.51	.14172	.03820	2.3036	.01466	32.671

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00418	.32600	.28957	.13024	293.72	9.5754	.09407
Stddev	.00007	.00033	.00093	.00104	.20	.0249	.00117
%RSD	1.6133	.10028	.32168	.79649	.06906	.26023	1.2400

#1	.00424	.32626	.29054	.12956	293.77	9.5485	.09401
#2	.00411	.32610	.28868	.12974	293.89	9.5799	.09294
#3	.00419	.32563	.28949	.13144	293.49	9.5978	.09527

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	16.373	26.131	.00985	3.1271	.15045	5.3226	.48378
Stddev	.156	.124	.00008	.0070	.00061	.0364	.00159
%RSD	.95493	.47316	.80760	.22251	.40418	.68293	.32817

#1	16.202	25.993	.00976	3.1202	.15109	5.3609	.48559
#2	16.405	26.169	.00990	3.1268	.14988	5.2885	.48311
#3	16.510	26.231	.00989	3.1341	.15039	5.3185	.48263

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110034416 Acquired: 10/20/2011 15:59:41 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 36.036	F 190.72	F -8484.7	.00454	.02098	F 279.37	.00817
Stddev	6.909	.29	24.7	.00221	.00314	1.19	.00021
%RSD	19.171	.14967	.29125	48.643	14.943	.42528	2.5420

#1	42.547	190.39	-8475.5	.00682	.02164	280.48	.00817
#2	36.773	190.83	-8466.0	.00441	.01757	278.12	.00797
#3	28.789	190.93	-8512.7	.00240	.02374	279.50	.00838

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-0.0400	-0.0400	-0.0400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.26425	.25166	.03331	.65934	.62305	.10952
Stddev	.00016	.00089	.00046	.00285	.00149	.00062
%RSD	.06221	.35176	1.3674	.43160	.23940	.56710

#1	.26437	.25065	.03383	.65720	.62137	.10905
#2	.26406	.25206	.03310	.65826	.62353	.10929
#3	.26431	.25228	.03300	.66257	.62424	.11023

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	27346.	43925.
Stddev	32.	338.
%RSD	.11622	.76886

#1	27325.	44247.
#2	27383.	43956.
#3	27331.	43574.



Approved: October 21, 2011

Emin D. Long

Sample Name: L1110034417 Acquired: 10/20/2011 16:03:02 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment: WG378864-01

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00294	139.23	.12813	.03753	1.3063	.01186	34.271
Stddev	.00052	.45	.00098	.00231	.0037	.00007	.034
%RSD	17.663	.32340	.76674	6.1425	.28225	.56770	.10035

#1	.00236	139.68	.12924	.04019	1.3027	.01184	34.306
#2	.00336	138.78	.12740	.03604	1.3101	.01180	34.271
#3	.00310	139.22	.12774	.03638	1.3061	.01193	34.237

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00128	.11924	.23698	.14076	251.37	17.339	.13010
Stddev	.00004	.00003	.00073	.00048	1.03	.054	.00090
%RSD	2.7585	.02177	.30856	.34388	.40845	.30919	.69092

#1	.00129	.11927	.23652	.14132	252.11	17.396	.13020
#2	.00132	.11922	.23660	.14054	250.20	17.332	.13094
#3	.00125	.11922	.23782	.14043	251.81	17.289	.12915

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	18.895	7.0546	.00619	.81211	.18990	4.8780	.26019
Stddev	.026	.0122	.00006	.00708	.00036	.0109	.00071
%RSD	.13592	.17274	.98648	.87205	.18819	.22239	.27160

#1	18.874	7.0675	.00620	.80684	.18954	4.8732	.25939
#2	18.888	7.0433	.00613	.80933	.19026	4.8904	.26072
#3	18.924	7.0532	.00625	.82016	.18990	4.8703	.26046

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110034417 Acquired: 10/20/2011 16:03:02 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment: WG378864-01

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 24.542	F 140.21	F -5694.3	.00178	.00858	F 380.31	.00633
Stddev	8.931	.35	9.9	.00077	.00457	.88	.00047
%RSD	36.392	.24667	.17454	43.059	53.320	.23048	7.4572

#1	32.854	140.58	-5684.7	.00187	.00456	379.47	.00591
#2	15.099	140.17	-5693.8	.00249	.01355	381.22	.00684
#3	25.674	139.89	-5704.6	.00097	.00762	380.23	.00624

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-.00400	-.00400	-.00400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.27949	.24084	.01646	.48051	.53440	.10168
Stddev	.00205	.00085	.00071	.00082	.00214	.00027
%RSD	.73293	.35288	4.3310	.17107	.40024	.26792

#1	.28183	.24121	.01728	.47957	.53670	.10137
#2	.27798	.23987	.01605	.48089	.53403	.10182
#3	.27868	.24145	.01604	.48108	.53247	.10185

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	27127.	43837.
Stddev	26.	118.
%RSD	.09615	.26851

#1	27129.	43759.
#2	27151.	43780.
#3	27099.	43972.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110034417S Acquired: 10/20/2011 16:06:23 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment: WG378864-04

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.16462	127.26	.26354	.02966	1.2544	.01019	34.949
Stddev	.00084	.86	.00147	.00204	.0040	.00007	.173
%RSD	.50738	.67248	.55719	6.8812	.31614	.66196	.49523
#1	.16533	126.49	.26321	.02760	1.2502	.01018	34.776
#2	.16482	127.12	.26227	.03168	1.2550	.01026	34.949
#3	.16370	128.18	.26515	.02971	1.2581	.01013	35.122

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02400	.10494	.19731	.34988	192.57	15.319	.11230
Stddev	.00013	.00024	.00209	.00064	4.64	.125	.00055
%RSD	.53892	.23278	1.0596	.18255	2.4078	.81903	.48609
#1	.02387	.10520	.19713	.35055	187.88	15.190	.11188
#2	.02413	.10490	.19948	.34927	197.15	15.326	.11292
#3	.02400	.10472	.19531	.34983	192.67	15.440	.11211

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	17.578	6.0320	.00445	.78045	.17683	4.7759	.40978
Stddev	.260	.0485	.00022	.00877	.00113	.0203	.00270
%RSD	1.4767	.80426	4.9816	1.1234	.63845	.42450	.65769
#1	17.306	5.9829	.00440	.77086	.17746	4.7953	.40928
#2	17.604	6.0332	.00425	.78244	.17751	4.7776	.41270
#3	17.824	6.0799	.00469	.78805	.17553	4.7548	.40738

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 High Limit
 Low Limit



Approved: October 21, 2011
Emin D. Long

Sample Name: L1110034417S Acquired: 10/20/2011 16:06:23 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment: WG378864-04

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 36.881	F 138.98	F -5541.0	.00186	.00593	F 409.70	.00606
Stddev	1.963	.28	13.7	.00142	.00388	1.11	.00016
%RSD	5.3211	.19928	.24636	76.333	65.368	.27192	2.6212

#1	36.209	138.66	-5525.7	.00128	.00511	409.66	.00588
#2	35.343	139.15	-5551.9	.00348	.00254	410.83	.00610
#3	39.092	139.13	-5545.4	.00082	.01016	408.61	.00619

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-0.0400	-0.0400	-0.0400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.26977	.25455	.01051	.36324	.50760	.09409
Stddev	.00070	.00234	.00129	.00127	.00034	.00013
%RSD	.26112	.91765	12.241	.34871	.06700	.13969

#1	.26925	.25332	.00994	.36338	.50731	.09414
#2	.26949	.25308	.01198	.36444	.50752	.09419
#3	.27057	.25724	.00961	.36191	.50798	.09395

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	26926.	44193.
Stddev	71.	652.
%RSD	.26403	1.4762

#1	26895.	44911.
#2	26877.	44030.
#3	27008.	43637.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110034417SD Acquired: 10/20/2011 16:09:43 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment: WG378864-05

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.16544	122.30	.27416	.02727	1.4024	.01075	33.177
Stddev	.00119	.26	.00132	.00149	.0042	.00003	.088
%RSD	.72190	.20916	.48007	5.4547	.29580	.23995	.26440

#1	.16499	122.00	.27308	.02691	1.3977	.01072	33.077
#2	.16679	122.43	.27378	.02599	1.4038	.01076	33.239
#3	.16453	122.46	.27563	.02890	1.4056	.01078	33.216

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02375	.13576	.21534	.35182	211.89	15.053	.10772
Stddev	.00005	.00018	.00052	.00121	.60	.018	.00032
%RSD	.22939	.13128	.24209	.34478	.28307	.12185	.29532

#1	.02382	.13555	.21476	.35176	211.53	15.063	.10735
#2	.02373	.13588	.21578	.35063	212.58	15.032	.10790
#3	.02371	.13584	.21547	.35306	211.55	15.065	.10790

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	17.235	8.9955	.00531	.77303	.18630	4.5216	.43890
Stddev	.134	.0202	.00015	.00227	.00070	.0157	.00244
%RSD	.77591	.22490	2.8557	.29354	.37442	.34659	.55496

#1	17.160	8.9727	.00538	.77460	.18550	4.5035	.43665
#2	17.157	9.0023	.00540	.77043	.18659	4.5305	.43857
#3	17.390	9.0114	.00513	.77407	.18680	4.5308	.44149

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110034417SD Acquired: 10/20/2011 16:09:43 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment: WG378864-05

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 43.394	F 135.22	F -5428.7	.00220	.00795	F 378.41	.00581
Stddev	6.179	.46	27.8	.00191	.00160	.41	.00015
%RSD	14.240	.34088	.51210	86.691	20.109	.10894	2.6069

#1	50.490	134.77	-5396.8	.00314	.00711	378.88	.00595
#2	40.488	135.19	-5447.4	.00345	.00980	378.11	.00583
#3	39.203	135.69	-5442.0	.00000	.00695	378.24	.00565

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-.00400	-.00400	-.00400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.26322	.25156	.01482	.40696	.50298	.09268
Stddev	.00049	.00108	.00066	.00095	.00035	.00036
%RSD	.18566	.43097	4.4470	.23381	.06911	.38423

#1	.26365	.25152	.01502	.40619	.50259	.09227
#2	.26332	.25050	.01535	.40803	.50324	.09292
#3	.26269	.25266	.01408	.40668	.50312	.09285

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	26670.	44145.
Stddev	33.	236.
%RSD	.12342	.53442

#1	26696.	44377.
#2	26633.	44152.
#3	26680.	43905.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: CCV Acquired: 10/20/2011 16:13:08 Type: QC
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.40348	10.066	.41872	.54107	.98048	.05193	9.9504
Stddev	.00481	.079	.00281	.00590	.00770	.00051	.0908
%RSD	1.1912	.78367	.67016	1.0901	.78520	.98036	.91279

#1	.40796	10.087	.42180	.54631	.98675	.05234	10.015
#2	.40407	10.132	.41803	.54222	.98280	.05209	9.9894
#3	.39841	9.9786	.41632	.53468	.97189	.05136	9.8465

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 Value
 Range

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05183	.20883	.49932	.52299	3.7749	54.013	1.0309
Stddev	.00035	.00205	.00472	.00447	.0316	.390	.0056
%RSD	.67466	.98183	.94435	.85448	.83808	.72265	.54706

#1	.05215	.21041	.50281	.52734	3.8027	54.189	1.0324
#2	.05188	.20957	.50118	.52321	3.7814	54.285	1.0356
#3	.05146	.20651	.49395	.51842	3.7405	53.566	1.0247

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 Value
 Range

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.349	.50383	1.0252	52.705	.54445	10.796	.49262
Stddev	.129	.00378	.0089	.420	.00472	.087	.00387
%RSD	1.2499	.75079	.86462	.79617	.86606	.80288	.78482

#1	10.398	.50623	1.0332	52.917	.54850	10.882	.49614
#2	10.446	.50580	1.0267	52.977	.54558	10.797	.49323
#3	10.202	.49947	1.0157	52.222	.53927	10.709	.48849

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 Value
 Range



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: CCV Acquired: 10/20/2011 16:13:08 Type: QC
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 20.398	10.759	F 14.681	1.2941	.41149	F 5.7370	1.0876
Stddev	1.214	.090	3.674	.0067	.00175	.0577	.0113
%RSD	5.9507	.83591	25.028	.51766	.42503	1.0054	1.0369

#1	21.723	10.854	15.933	1.2953	.41066	5.7882	1.0971
#2	20.132	10.747	10.545	1.3002	.41350	5.6745	1.0906
#3	19.340	10.675	17.566	1.2869	.41031	5.7482	1.0752

Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
Value	10.000		10.000			5.0000	
Range	10.000%		10.000%			10.000%	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0834	1.0389	.54168	1.0526	.97766	1.0341
Stddev	.0063	.0080	.00438	.0118	.00983	.0189
%RSD	.58221	.76919	.80893	1.1243	1.0059	1.8271

#1	1.0844	1.0425	.54219	1.0623	.98489	1.0510
#2	1.0891	1.0445	.54579	1.0561	.98163	1.0376
#3	1.0766	1.0297	.53707	1.0394	.96646	1.0137

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	26681.	41998.
Stddev	205.	296.
%RSD	.76792	.70361

#1	26505.	41918.
#2	26630.	41751.
#3	26906.	42326.



Approved: October 21, 2011
<i>Erin D. Long</i>

Sample Name: CCB Acquired: 10/20/2011 16:16:17 Type: Blank
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00035	-.01129	-.00041	-.00111	-.00052	-.00003	-.01468
Stddev	.00035	.00596	.00093	.00038	.00014	.00003	.00342
%RSD	99.110	52.774	226.73	34.055	26.775	84.836	23.290

#1	.00029	-.00888	-.00137	-.00069	-.00062	-.00006	-.01156
#2	.00004	-.01807	.00049	-.00143	-.00058	.00000	-.01834
#3	.00072	-.00691	-.00035	-.00120	-.00036	-.00004	-.01414

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00011	-.00016	-.00021	-.00053	.00076	-.12344	-.00391
Stddev	.00004	.00004	.00021	.00058	.00018	.01371	.00056
%RSD	35.888	24.941	102.94	109.74	23.305	11.107	14.253

#1	-.00013	-.00012	-.00001	-.00105	.00095	-.11397	-.00348
#2	-.00014	-.00020	-.00044	.00010	.00074	-.11718	-.00454
#3	-.00007	-.00016	-.00018	-.00063	.00059	-.13916	-.00372

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00599	-.00023	-.00173	-.01134	-.00114	-.00609	-.00127
Stddev	.00640	.00016	.00011	.00771	.00014	.00340	.00028
%RSD	106.77	71.016	6.2591	68.024	12.407	55.756	21.938

#1	-.00226	-.00023	-.00182	-.00554	-.00130	-.00974	-.00106
#2	-.01338	-.00007	-.00177	-.00839	-.00110	-.00552	-.00159
#3	-.00233	-.00040	-.00161	-.02009	-.00103	-.00302	-.00117

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: CCB Acquired: 10/20/2011 16:16:17 Type: Blank
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 31.587	F -.11987	F 7.2098	-.00233	-.00147	-.21969	-.00269
Stddev	5.352	.01089	2.0412	.00137	.00093	.19049	.00032
%RSD	16.943	9.0846	28.311	58.824	62.848	86.709	11.921

#1	29.628	-.13075	7.2512	-.00362	-.00158	-.02330	-.00281
#2	37.642	-.11988	5.1483	-.00089	-.00050	-.40367	-.00294
#3	27.491	-.10898	9.2300	-.00249	-.00234	-.23209	-.00233

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.01000	.01000	.01000				
Low Limit	-.01000	-.01000	-.01000				

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00023	.00058	-.00049	-.00023	-.00166	.00528
Stddev	.00002	.00056	.00063	.00027	.00002	.00061
%RSD	9.8749	96.260	128.24	118.46	1.4336	11.509

#1	-.00022	.00001	-.00117	-.00049	-.00167	.00468
#2	-.00026	.00061	.00006	-.00025	-.00168	.00526
#3	-.00022	.00113	-.00036	.00005	-.00163	.00590

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	27244.	41655.
Stddev	69.	188.
%RSD	.25445	.45126

#1	27309.	41871.
#2	27253.	41559.
#3	27171.	41534.



Approved: October 21, 2011

Emin D. Long

Sample Name: PBS 82 Acquired: 10/20/2011 16:19:46 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment: WG378979-02

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00068	-.00011	-.00138	-.00103	-.00025	-.00001	.06592
Stddev	.00081	.01276	.00064	.00039	.00012	.00002	.00539
%RSD	118.93	11802.	46.463	37.422	50.411	110.52	8.1749

#1	.00026	-.01467	-.00098	-.00116	-.00037	-.00001	.06687
#2	.00162	.00909	-.00212	-.00060	-.00012	.00000	.06012
#3	.00017	.00526	-.00104	-.00134	-.00025	-.00003	.07078

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00006	-.00057	.00106	-.00103	.00840	-.13536	-.00456
Stddev	.00005	.00002	.00025	.00043	.00112	.01848	.00057
%RSD	80.135	2.6354	23.982	42.039	13.275	13.651	12.423

#1	.00004	-.00057	.00135	-.00129	.00720	-.15375	-.00408
#2	.00003	-.00059	.00088	-.00127	.00940	-.13554	-.00519
#3	.00012	-.00056	.00094	-.00053	.00861	-.11680	-.00443

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.03139	.00000	-.00182	.02836	-.00062	F -.01133	-.00033
Stddev	.00545	.0002	.00002	.00633	.00021	.00236	.00060
%RSD	17.372	3636.9	1.0333	22.320	32.952	20.810	180.28

#1	.02936	-.00019	-.00180	.02154	-.00045	-.00975	-.00056
#2	.02724	.00015	-.00184	.03404	-.00057	-.01404	-.00078
#3	.03756	.00003	-.00182	.02951	-.00085	-.01021	.00035

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	



Approved: October 21, 2011
<i>Erin D. Long</i>

Sample Name: PBS 82 Acquired: 10/20/2011 16:19:46 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment: WG378979-02

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 21.628	.83754	F -41.268	-0.0182	-0.0063	1.2276	-0.0244
Stddev	3.354	.01766	4.572	.00043	.00127	.0637	.00008
%RSD	15.508	2.1081	11.078	23.749	200.79	5.1926	3.1101

#1	20.742	.81928	-45.690	-.00232	.00082	1.1579	-.00252
#2	25.336	.83882	-36.560	-.00154	-.00122	1.2830	-.00237
#3	18.805	.85452	-41.553	-.00160	-.00149	1.2419	-.00245

Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000		9.0000				
Low Limit	-.00400		-.00400				

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00007	.00072	-0.00264	-0.00003	.00018	.00335
Stddev	.00005	.00080	.00133	.00009	.00001	.00047
%RSD	70.697	110.07	50.574	254.48	6.2136	14.035

#1	.00003	.00144	-.00416	-.00007	.00017	.00293
#2	.00005	.00086	-.00171	.00006	.00019	.00326
#3	.00012	-.00013	-.00203	-.00010	.00017	.00385

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	26641.	41299.
Stddev	115.	191.
%RSD	.43092	.46251

#1	26523.	41110.
#2	26649.	41297.
#3	26752.	41492.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: LCSS 82 Acquired: 10/20/2011 16:23:11 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment: WG378979-03

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.17812	-.01086	.19234	-.00136	-.00041	.00000	.01959
Stddev	.00095	.00239	.00106	.00005	.00004	.0000	.00195
%RSD	.53361	22.045	.54994	3.6160	10.628	242.19	9.9503

#1	.17768	-.01308	.19352	-.00141	-.00037	-.00001	.02184
#2	.17747	-.00832	.19149	-.00135	-.00045	-.00001	.01835
#3	.17921	-.01118	.19200	-.00131	-.00043	.00001	.01859

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02460	-.00053	.00109	.25582	.02936	-.17909	-.00482
Stddev	.00005	.00009	.00003	.00067	.00256	.02437	.00158
%RSD	.21431	17.229	2.7542	.26286	8.7055	13.607	32.806

#1	.02457	-.00049	.00108	.25608	.02983	-.15192	-.00437
#2	.02458	-.00047	.00107	.25505	.03164	-.19900	-.00657
#3	.02467	-.00064	.00112	.25631	.02660	-.18637	-.00351

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01582	.24736	-.00195	.00034	-.00057	F -.01549	.24536
Stddev	.00731	.00138	.00008	.00074	.00038	.00135	.00040
%RSD	46.245	.55942	4.3100	218.49	65.404	8.7204	.16254

#1	.01107	.24644	-.00187	.00097	-.00096	-.01481	.24499
#2	.01214	.24669	-.00204	.00054	-.00055	-.01705	.24531
#3	.02424	.24895	-.00195	-.00048	-.00021	-.01462	.24578

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	



Approved: October 21, 2011

Erin D. Long

Sample Name: LCSS 82 Acquired: 10/20/2011 16:23:11 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment: WG378979-03

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 20.508	.27007	F -10.064	-.00151	.00067	1.0928	-.00291
Stddev	6.173	.01007	2.086	.00128	.00126	.0855	.00024
%RSD	30.103	3.7293	20.725	84.525	187.49	7.8252	8.4017

#1	18.076	.27478	-8.7384	-.00249	-.00077	1.1872	-.00263
#2	27.527	.27693	-12.468	-.00198	.00120	1.0204	-.00309
#3	15.921	.25851	-8.9855	-.00007	.00159	1.0709	-.00300

Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000		9.0000				
Low Limit	-.00400		-.00400				

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00019	.00071	-.00183	-.00013	.00177	.00169
Stddev	.00001	.00026	.00057	.00018	.00006	.00035
%RSD	5.7572	37.087	30.992	139.63	3.4331	20.473

#1	-.00020	.00044	-.00188	-.00001	.00178	.00133
#2	-.00018	.00072	-.00124	-.00034	.00182	.00170
#3	-.00020	.00096	-.00237	-.00004	.00170	.00202

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	26547.	41648.
Stddev	38.	203.
%RSD	.14497	.48776

#1	26572.	41722.
#2	26566.	41419.
#3	26503.	41805.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110034938 Acquired: 10/20/2011 16:26:34 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00688	239.62	.15981	.08019	1.5283	.02223	53.865
Stddev	.00023	.79	.00047	.01098	.0018	.00001	.165
%RSD	3.4111	.33093	.29435	13.690	.11849	.03067	.30720

#1	.00690	239.57	.15974	.09186	1.5269	.02224	53.796
#2	.00663	240.44	.15937	.07864	1.5303	.02223	54.054
#3	.00710	238.86	.16030	.07007	1.5277	.02223	53.745

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F -.00316	.38907	.30917	.27745	758.28	12.022	.19461
Stddev	.00011	.00030	.00205	.00236	8.59	.038	.00121
%RSD	3.5805	.07783	.66154	.85025	1.1334	.31587	.62008

#1	-.00306	.38935	.30684	.27642	767.99	11.982	.19571
#2	-.00329	.38912	.30998	.28015	755.18	12.058	.19481
#3	-.00314	.38875	.31069	.27579	751.66	12.025	.19332

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	16.200						
Low Limit	-.00050						

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	30.659	26.102	.00875	1.2534	.43380	2.7252	.46630
Stddev	.118	.074	.00033	.0093	.00303	.0272	.00214
%RSD	.38448	.28415	3.7346	.74300	.69810	.99872	.45865

#1	30.551	26.064	.00896	1.2449	.43328	2.7068	.46631
#2	30.785	26.187	.00837	1.2633	.43106	2.7124	.46415
#3	30.641	26.054	.00891	1.2520	.43705	2.7565	.46843

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011

Emin D. Jong

Sample Name: L1110034938 Acquired: 10/20/2011 16:26:34 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 25.211	F 152.53	F -5172.4	.00707	.01672	F 338.29	.01206
Stddev	6.969	.36	12.7	.00119	.00150	.59	.00057
%RSD	27.645	.23663	.24558	16.866	8.9510	.17376	4.7341

#1	33.229	152.19	-5163.9	.00784	.01500	338.56	.01148
#2	20.611	152.48	-5187.0	.00768	.01773	337.62	.01262
#3	21.792	152.91	-5166.3	.00570	.01744	338.70	.01208

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-0.0400	-0.0400	-0.0400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.41434	.23208	.03669	.52875	.56454	.11299
Stddev	.00115	.00090	.00063	.00211	.00070	.00035
%RSD	.27702	.38883	1.7065	.39876	.12423	.30818

#1	.41384	.23152	.03597	.52829	.56499	.11307
#2	.41565	.23312	.03705	.53105	.56489	.11329
#3	.41352	.23160	.03706	.52691	.56373	.11261

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	25860.	43162.
Stddev	63.	73.
%RSD	.24347	.16954

#1	25795.	43199.
#2	25863.	43077.
#3	25921.	43209.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110034939 Acquired: 10/20/2011 16:29:50 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00508	206.09	.09465	.06347	1.3314	.01365	619.86
Stddev	.00035	.78	.00120	.00410	.0009	.00002	11.55
%RSD	6.8194	.37970	1.2714	6.4609	.06863	.14784	1.8636

#1	.00531	206.73	.09436	.05938	1.3322	.01366	608.43
#2	.00525	206.32	.09598	.06347	1.3304	.01366	619.61
#3	.00468	205.21	.09363	.06758	1.3317	.01363	631.53

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00471	.16677	.27227	.21911	386.23	17.899	.20538
Stddev	.00006	.00138	.00144	.00624	6.28	.031	.00161
%RSD	1.3706	.82803	.52868	2.8474	1.6253	.17083	.78479

#1	.00467	.16707	.27388	.22352	380.29	17.933	.20714
#2	.00478	.16798	.27183	.22185	385.59	17.890	.20399
#3	.00468	.16527	.27111	.21197	392.80	17.874	.20500

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	36.343	11.921	.00578	1.7389	.32190	4.6478	.91426
Stddev	.056	.015	.00007	.0103	.00203	.0385	.00290
%RSD	.15416	.12848	1.2571	.59134	.63162	.82921	.31755

#1	36.330	11.938	.00570	1.7475	.32391	4.6742	.91593
#2	36.294	11.916	.00582	1.7275	.32194	4.6657	.91594
#3	36.404	11.908	.00583	1.7416	.31985	4.6036	.91091

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011

Emin D. Long

Sample Name: L1110034939 Acquired: 10/20/2011 16:29:50 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 30.354	F 820.06	F -11678.	.00346	.01018	F 338.16	.01092
Stddev	5.697	3.72	91.	.00168	.00227	2.68	.00050
%RSD	18.769	.45393	.78052	48.383	22.332	.79233	4.5849

#1	35.967	823.54	-11765.	.00277	.00786	340.07	.01122
#2	30.517	820.51	-11684.	.00537	.01029	339.32	.01119
#3	24.577	816.14	-11583.	.00224	.01241	335.10	.01034

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-.00400	-.00400	-.00400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.5596	.24419	.01658	.38482	1.1847	.10972
Stddev	.0200	.00030	.00144	.00093	.0060	.00018
%RSD	.78180	.12386	8.6855	.24137	.50362	.16788

#1	2.5728	.24449	.01722	.38582	1.1872	.10993
#2	2.5366	.24421	.01758	.38467	1.1890	.10959
#3	2.5695	.24388	.01493	.38398	1.1779	.10964

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	25799.	43812.
Stddev	67.	131.
%RSD	.25937	.29885

#1	25746.	43836.
#2	25776.	43930.
#3	25874.	43671.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110034940 Acquired: 10/20/2011 16:33:26 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00492	194.61	.08797	.04385	1.1999	.01551	80.089
Stddev	.00043	2.06	.00158	.00317	.0193	.00014	1.038
%RSD	8.7453	1.0594	1.7986	7.2321	1.6099	.87986	1.2962

#1	.00535	192.72	.08832	.04486	1.1795	.01536	79.094
#2	.00494	194.30	.08624	.04030	1.2021	.01558	80.007
#3	.00449	196.81	.08935	.04640	1.2179	.01561	81.166

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00039	.24804	.25613	.26655	468.43	9.3439	.17472
Stddev	.00008	.00190	.00135	.00500	4.38	.1258	.00066
%RSD	20.481	.76751	.52739	1.8757	.93444	1.3468	.38001

#1	.00043	.24972	.25477	.26514	468.48	9.2225	.17421
#2	.00044	.24844	.25748	.27211	464.03	9.3353	.17449
#3	.00030	.24597	.25614	.26241	472.79	9.4737	.17547

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	35.772	18.055	.00582	.89874	.38482	3.0745	.60530
Stddev	.417	.200	.00027	.01614	.00116	.0226	.00261
%RSD	1.1652	1.1090	4.6181	1.7963	.30135	.73499	.43159

#1	35.322	17.861	.00553	.88049	.38576	3.0797	.60572
#2	35.850	18.043	.00586	.91114	.38518	3.0941	.60767
#3	36.145	18.261	.00606	.90459	.38352	3.0498	.60250

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011

Emin D. Long

Sample Name: L1110034940 Acquired: 10/20/2011 16:33:26 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 29.150	F 192.21	F -5907.6	.00488	.01087	F 326.62	.00951
Stddev	16.873	1.25	34.7	.00134	.00290	2.16	.00055
%RSD	57.881	.65264	.58686	27.440	26.665	.66146	5.7802

#1	23.556	192.45	-5924.5	.00592	.01397	328.40	.00970
#2	15.785	193.33	-5930.6	.00534	.01041	327.23	.00889
#3	48.109	190.85	-5867.8	.00337	.00823	324.21	.00993

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-0.0400	-0.0400	-0.0400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49253	.18121	.02478	.37127	.79884	.11326
Stddev	.00331	.00175	.00039	.00221	.00734	.00073
%RSD	.67217	.96459	1.5553	.59532	.91857	.64486

#1	.48979	.17937	.02516	.36881	.80442	.11242
#2	.49158	.18143	.02439	.37309	.80158	.11359
#3	.49621	.18285	.02480	.37191	.79053	.11376

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	27166.	43489.
Stddev	107.	129.
%RSD	.39273	.29701

#1	27185.	43371.
#2	27051.	43469.
#3	27262.	43627.



Approved: October 21, 2011

Emin D. Long

Sample Name: L1110034941 Acquired: 10/20/2011 16:36:45 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00707	209.94	.12555	.07038	1.7153	.01355	F 1066.6
Stddev	.00033	.81	.00030	.00289	.0038	.00006	3.3
%RSD	4.7257	.38369	.23743	4.1091	.22244	.46174	.30554

#1	.00698	209.41	.12586	.07098	1.7162	.01361	1068.8
#2	.00744	209.54	.12551	.07293	1.7185	.01355	1068.1
#3	.00679	210.86	.12527	.06724	1.7111	.01349	1062.9

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit							900.00
Low Limit							-.10000

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01373	.16005	.25909	.26838	328.94	20.164	.22676
Stddev	.00004	.00028	.00156	.00215	2.75	.076	.00018
%RSD	.28186	.17431	.60078	.80139	.83738	.37636	.07966

#1	.01377	.15973	.26088	.27041	328.35	20.106	.22687
#2	.01371	.16022	.25812	.26859	331.95	20.135	.22685
#3	.01370	.16019	.25826	.26613	326.54	20.250	.22655

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	53.650	11.122	.00681	1.3320	.33778	7.3763	1.4623
Stddev	.479	.046	.00017	.0114	.00090	.0175	.0089
%RSD	.89364	.41661	2.4896	.85393	.26553	.23669	.60894

#1	53.116	11.070	.00662	1.3208	.33880	7.3613	1.4712
#2	53.788	11.135	.00686	1.3435	.33742	7.3722	1.4624
#3	54.044	11.160	.00694	1.3315	.33712	7.3955	1.4534

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110034941 Acquired: 10/20/2011 16:36:45 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 40.674	F 1416.7	F -17851.	.00553	.01365	F 363.80	.01303
Stddev	17.284	1.3	54.	.00205	.00183	.66	.00051
%RSD	42.494	.09210	.30312	37.008	13.432	.18203	3.9185

#1	21.297	1418.1	-17843.	.00434	.01407	363.78	.01360
#2	46.224	1416.7	-17909.	.00436	.01165	364.46	.01289
#3	54.502	1415.5	-17801.	.00790	.01525	363.14	.01261

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-0.00400	-0.00400	-0.00400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 5.4289	.25164	.01556	.36814	2.3391	.10505
Stddev	.0507	.00055	.00048	.00113	.0180	.00011
%RSD	.93459	.21886	3.0841	.30584	.76854	.10908

#1	5.3880	.25103	.01512	.36943	2.3569	.10508
#2	5.4857	.25210	.01608	.36733	2.3395	.10492
#3	5.4131	.25178	.01549	.36766	2.3210	.10515

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	4.5000					
Low Limit	-0.01000					

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	25009.	42066.
Stddev	45.	333.
%RSD	.18014	.79058

#1	24976.	42448.
#2	24990.	41839.
#3	25060.	41912.



Approved: October 21, 2011

Emin D. Long

Sample Name: L1110034942 Acquired: 10/20/2011 16:40:20 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00569	209.01	.10415	.04890	1.4995	.01394	679.99
Stddev	.00058	.46	.00191	.00230	.0023	.00008	1.98
%RSD	10.251	.22115	1.8323	4.7084	.15372	.56055	.29155

#1	.00607	208.53	.10270	.04694	1.5015	.01393	677.74
#2	.00502	209.45	.10631	.05144	1.4970	.01387	681.48
#3	.00597	209.05	.10343	.04833	1.5001	.01402	680.75

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00763	.18233	.24530	.23526	328.73	17.356	.21211
Stddev	.00004	.00083	.00063	.00111	2.69	.057	.00135
%RSD	.55106	.45770	.25638	.47329	.81803	.32907	.63790

#1	.00761	.18165	.24554	.23641	327.18	17.357	.21266
#2	.00767	.18326	.24459	.23418	331.83	17.413	.21310
#3	.00759	.18208	.24578	.23520	327.16	17.298	.21057

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	41.825	12.921	.00520	1.0009	.33351	5.3722	1.1034
Stddev	.142	.024	.00014	.0083	.00117	.0413	.0071
%RSD	.34040	.18412	2.6780	.82749	.35208	.76948	.64284

#1	41.686	12.894	.00535	.99308	.33469	5.3955	1.1100
#2	41.819	12.938	.00517	.99993	.33350	5.3966	1.1043
#3	41.970	12.930	.00508	1.0096	.33234	5.3245	1.0959

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110034942 Acquired: 10/20/2011 16:40:20 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 33.061	F 915.87	F -12312.	.00403	.01260	F 300.23	.01015
Stddev	14.970	3.42	59.	.00384	.00325	1.76	.00046
%RSD	45.282	.37339	.47690	95.294	25.789	.58705	4.5096

#1	41.737	918.67	-12357.	.00354	.01613	300.88	.01054
#2	41.670	916.88	-12333.	.00046	.01191	301.59	.01027
#3	15.774	912.06	-12246.	.00810	.00974	298.24	.00965

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-.00400	-.00400	-.00400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.5478	.20509	.01795	.34821	1.5288	.09946
Stddev	.0279	.00109	.00134	.00144	.0040	.00050
%RSD	.78769	.52929	7.4392	.41323	.25940	.50769

#1	3.5567	.20394	.01921	.34744	1.5332	.09892
#2	3.5702	.20525	.01809	.34731	1.5255	.09953
#3	3.5165	.20609	.01655	.34987	1.5275	.09993

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	25627.	44192.
Stddev	113.	21.
%RSD	.44055	.04834

#1	25717.	44172.
#2	25664.	44215.
#3	25501.	44189.



Approved: October 21, 2011

Emin D. Long

Sample Name: L1110034943 Acquired: 10/20/2011 16:43:57 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00954	275.27	.13178	.11831	3.1509	.01609	91.511
Stddev	.00042	.93	.00059	.00331	.0031	.00003	.103
%RSD	4.3914	.33966	.44968	2.7946	.09816	.19718	.11240

#1	.00914	274.46	.13112	.11477	3.1499	.01607	91.396
#2	.00951	275.05	.13193	.11883	3.1544	.01612	91.543
#3	.00997	276.29	.13228	.12132	3.1485	.01607	91.594

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00918	.12684	.40785	.25534	338.48	23.577	.18996
Stddev	.00016	.00017	.00252	.00114	4.17	.102	.00150
%RSD	1.7648	.13102	.61766	.44731	1.2310	.43272	.78907

#1	.00900	.12665	.40913	.25624	334.18	23.488	.19159
#2	.00928	.12691	.40947	.25572	338.76	23.554	.18864
#3	.00927	.12696	.40495	.25405	342.49	23.688	.18966

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	29.813	7.9549	.00801	2.8621	.30896	6.6019	.74843
Stddev	.287	.0374	.00006	.0105	.00114	.0054	.00349
%RSD	.96244	.46989	.77620	.36581	.36847	.08116	.46607

#1	29.576	7.9222	.00808	2.8536	.30774	6.6013	.74473
#2	29.731	7.9469	.00798	2.8588	.30914	6.5968	.75166
#3	30.132	7.9957	.00796	2.8738	.30999	6.6075	.74890

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011

Emin D. Long

Sample Name: L1110034943 Acquired: 10/20/2011 16:43:57 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 47.717	F 350.77	F -14079.	.00994	.01150	F 408.34	.01565
Stddev	5.115	.43	7.	.00194	.00352	1.77	.00037
%RSD	10.720	.12264	.04768	19.490	30.627	.43425	2.3532

#1	47.794	350.36	-14079.	.01207	.00773	407.89	.01579
#2	42.564	351.21	-14072.	.00944	.01470	406.84	.01593
#3	52.794	350.75	-14086.	.00829	.01208	410.30	.01524

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-.00400	-.00400	-.00400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.2921	.88802	.01850	.56735	1.9207	.18588
Stddev	.0044	.00393	.00101	.00132	.0061	.00031
%RSD	.34230	.44273	5.4398	.23230	.31896	.16913

#1	1.2895	.88535	.01896	.56763	1.9185	.18612
#2	1.2896	.88618	.01920	.56851	1.9277	.18600
#3	1.2972	.89253	.01735	.56592	1.9161	.18553

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	26470.	43441.
Stddev	87.	289.
%RSD	.32742	.66612

#1	26396.	43626.
#2	26450.	43589.
#3	26565.	43108.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110034943PS Acquired: 10/20/2011 16:47:13 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment: WG379512-01

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.19671	250.93	.31018	1.0953	3.3154	.03902	86.796
Stddev	.00073	1.39	.00242	.0040	.0228	.00020	.489
%RSD	.37039	.55464	.77895	.36213	.68820	.50681	.56377

#1	.19743	252.06	.31269	1.0971	3.3269	.03904	87.337
#2	.19672	249.37	.30787	1.0980	3.3302	.03921	86.385
#3	.19597	251.35	.31000	1.0908	3.2891	.03882	86.665

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.03218	.20708	.59051	.45030	312.20	47.292	.66799
Stddev	.00016	.00089	.00358	.00253	2.77	.198	.00312
%RSD	.50546	.43068	.60548	.56106	.88625	.41962	.46681

#1	.03217	.20778	.59245	.44888	312.00	47.426	.67154
#2	.03235	.20739	.59270	.45321	309.53	47.064	.66676
#3	.03203	.20608	.58639	.44879	315.06	47.386	.66568

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	31.426	7.3656	.49672	28.504	.51857	5.8529	.87657
Stddev	.278	.0371	.00094	.065	.00252	.0265	.00368
%RSD	.88506	.50314	.18917	.22850	.48597	.45269	.42023

#1	31.387	7.3895	.49687	28.579	.52136	5.8706	.87403
#2	31.170	7.3229	.49758	28.461	.51791	5.8657	.88080
#3	31.722	7.3844	.49572	28.473	.51645	5.8224	.87489

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110034943PS Acquired: 10/20/2011 16:47:13 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment: WG379512-01

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 39.268	F 315.11	F -12458.	.58990	.20048	F 699.13	.01555
Stddev	13.670	.51	21.	.00050	.00269	1.60	.00041
%RSD	34.812	.16265	.16954	.08542	1.3415	.22883	2.6116

#1	30.627	315.69	-12440.	.58982	.20201	700.36	.01575
#2	55.029	314.76	-12451.	.59043	.20205	699.69	.01583
#3	32.150	314.86	-12481.	.58944	.19737	697.32	.01509

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-.00400	-.00400	-.00400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.6702	1.2744	.25046	1.0058	2.1372	.16616
Stddev	.0097	.0047	.00177	.0046	.0059	.00071
%RSD	.57839	.36662	.70793	.46132	.27409	.42553

#1	1.6799	1.2791	.25151	1.0088	2.1410	.16670
#2	1.6606	1.2698	.25145	1.0080	2.1401	.16643
#3	1.6700	1.2744	.24841	1.0004	2.1304	.16536

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	26783.	43912.
Stddev	121.	493.
%RSD	.45018	1.1228

#1	26688.	43912.
#2	26742.	44405.
#3	26919.	43419.



Approved: October 21, 2011

Emin D. Long

Sample Name: L1110034943SDL Acquired: 10/20/2011 16:50:32 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: 5 Custom ID2: Custom ID3:
 Comment: WG379512-02

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00222	55.554	.02822	.02653	.63827	.00333	18.502
Stddev	.00005	.144	.00139	.00008	.00286	.00004	.034
%RSD	2.2895	.26007	4.9099	.29454	.44830	1.2505	.18559

#1	.00224	55.403	.02688	.02651	.63609	.00333	18.462
#2	.00217	55.568	.02965	.02646	.63721	.00328	18.522
#3	.00227	55.691	.02812	.02662	.64151	.00337	18.522

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00176	.02696	.08612	.05345	73.595	4.6516	.03460
Stddev	.00004	.00013	.00105	.00061	.245	.0234	.00113
%RSD	2.2135	.47772	1.2191	1.1413	.33348	.50261	3.2521

#1	.00176	.02684	.08606	.05408	73.512	4.6505	.03579
#2	.00172	.02709	.08510	.05341	73.402	4.6289	.03355
#3	.00180	.02694	.08720	.05286	73.871	4.6756	.03446

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.4752	1.6561	.00010	.57684	.06556	1.4028	.16721
Stddev	.0215	.0035	.00004	.00165	.00071	.0071	.00035
%RSD	.33248	.21256	38.545	.28518	1.0815	.50620	.21183

#1	6.4965	1.6549	.00010	.57638	.06476	1.3946	.16762
#2	6.4535	1.6533	.00006	.57549	.06610	1.4078	.16703
#3	6.4756	1.6600	.00014	.57867	.06583	1.4059	.16699

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011

Emin D. Long

Sample Name: L1110034943SDL Acquired: 10/20/2011 16:50:32 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: 5 Custom ID2: Custom ID3:
 Comment: WG379512-02

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 21.040	F 75.695	F -2972.9	-0.00064	.00009	86.166	.00037
Stddev	10.690	.157	4.8	.00028	.00068	.593	.00024
%RSD	50.809	.20676	.16263	43.113	765.31	.68872	63.457

#1	8.7274	75.564	-2978.5	-0.00096	-0.00064	85.523	.00017
#2	26.436	75.868	-2970.3	-0.00047	.00071	86.279	.00063
#3	27.957	75.653	-2969.9	-0.00050	.00021	86.694	.00032

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000	9.0000	9.0000				
Low Limit	-0.00400	-0.00400	-0.00400				

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.25455	.18093	.00577	.11699	.41083	.03677
Stddev	.00117	.00103	.00189	.00132	.00208	.00040
%RSD	.46127	.57014	32.731	1.1275	.50720	1.0777

#1	.25320	.18047	.00629	.11786	.41267	.03697
#2	.25511	.18021	.00367	.11547	.41126	.03632
#3	.25535	.18212	.00734	.11763	.40857	.03703

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	28223.	43885.
Stddev	158.	281.
%RSD	.55815	.63978

#1	28369.	44138.
#2	28243.	43934.
#3	28056.	43583.



Approved: October 21, 2011

Emin D. Long

Sample Name: CCV Acquired: 10/20/2011 16:53:54 Type: QC
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.39378	9.7205	.41873	.54313	.94820	.05157	9.5927
Stddev	.00269	.0325	.00182	.00160	.00069	.00010	.0212
%RSD	.68347	.33468	.43496	.29474	.07294	.18532	.22138

#1	.39544	9.6880	.41725	.54400	.94900	.05163	9.6091
#2	.39523	9.7203	.41817	.54411	.94790	.05161	9.5687
#3	.39068	9.7531	.42076	.54129	.94772	.05146	9.6002

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 Value
 Range

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05144	.20827	.48879	.52071	3.6108	53.833	1.0188
Stddev	.00025	.00145	.00192	.00318	.0164	.105	.0011
%RSD	.48854	.69396	.39234	.61148	.45332	.19463	.10838

#1	.05120	.20661	.48916	.51705	3.6008	53.742	1.0176
#2	.05143	.20918	.49049	.52283	3.6019	53.810	1.0192
#3	.05170	.20903	.48671	.52226	3.6297	53.948	1.0196

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 Value
 Range

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.083	.48890	1.0177	52.342	.54771	10.855	.48496
Stddev	.028	.00158	.0060	.051	.00216	.044	.00501
%RSD	.28052	.32235	.58672	.09715	.39364	.40985	1.0329

#1	10.051	.48797	1.0109	52.291	.54575	10.809	.47930
#2	10.102	.48800	1.0203	52.393	.55002	10.898	.48673
#3	10.097	.49072	1.0220	52.341	.54736	10.856	.48884

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 Value
 Range



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: CCV Acquired: 10/20/2011 16:53:54 Type: QC
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 15.245	10.837	F 13.620	1.3009	.41181	F 5.6071	1.0990
Stddev	16.911	.087	3.042	.0112	.00447	.1318	.0043
%RSD	110.93	.80710	22.338	.86008	1.0843	2.3512	.39371

#1	29.551	10.738	10.287	1.2892	.40692	5.4612	1.0949
#2	-3.4185	10.904	14.323	1.3114	.41282	5.6424	1.1035
#3	19.602	10.868	16.249	1.3022	.41568	5.7177	1.0987

Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
Value	10.000		10.000			5.0000	
Range	10.000%		10.000%			10.000%	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0659	1.0162	.54480	1.0480	.96646	1.0212
Stddev	.0025	.0018	.00152	.0030	.00734	.0106
%RSD	.23792	.18019	.27930	.28839	.75992	1.0377

#1	1.0666	1.0153	.54394	1.0499	.95853	1.0300
#2	1.0631	1.0150	.54656	1.0495	.96783	1.0241
#3	1.0681	1.0183	.54391	1.0445	.97302	1.0095

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	26251.	41777.
Stddev	69.	159.
%RSD	.26132	.38110

#1	26313.	41960.
#2	26177.	41668.
#3	26261.	41703.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: CCB Acquired: 10/20/2011 16:57:04 Type: Blank
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00049	-.00991	-.00035	.00027	-.00070	-.00001	-.01058
Stddev	.00030	.01144	.00018	.00087	.00006	.00002	.00452
%RSD	60.696	115.48	51.109	315.21	8.5606	222.29	42.748

#1	.00084	-.01222	-.00015	.00109	-.00076	.00001	-.01261
#2	.00032	-.02002	-.00049	-.00064	-.00068	-.00002	-.01373
#3	.00031	.00251	-.00042	.00037	-.00065	-.00003	-.00540

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00007	-.00036	.00005	-.00050	-.00134	-.13482	-.00286
Stddev	.00009	.00008	.00022	.00017	.00382	.00835	.00149
%RSD	139.59	21.082	431.65	34.581	285.53	6.1920	51.921

#1	.00001	-.00036	.00000	-.00051	-.00542	-.12996	-.00214
#2	-.00003	-.00044	-.00014	-.00067	-.00075	-.13004	-.00187
#3	-.00017	-.00029	.00029	-.00032	.00216	-.14446	-.00457

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00750	-.00001	-.00176	-.01434	-.00111	-.00388	-.00154
Stddev	.00129	.00032	.00003	.00497	.00057	.00068	.00122
%RSD	17.158	2748.1	1.4748	34.639	51.397	17.556	79.352

#1	-.00837	-.00036	-.00174	-.00891	-.00071	-.00324	-.00288
#2	-.00602	.00026	-.00179	-.01865	-.00176	-.00460	-.00124
#3	-.00809	.00006	-.00174	-.01548	-.00086	-.00382	-.00049

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: CCB Acquired: 10/20/2011 16:57:04 Type: Blank
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 12.902	F -.06381	F 5.0604	-.00200	-.00328	.00627	-.00246
Stddev	9.044	.04764	2.9505	.00030	.00141	.13113	.00024
%RSD	70.095	74.667	58.305	14.939	42.922	2091.7	9.6125

#1	18.676	-.03644	5.4219	-.00233	-.00469	.14682	-.00219
#2	2.4796	-.03616	1.9459	-.00193	-.00188	-.11279	-.00262
#3	17.550	-.11882	7.8135	-.00175	-.00327	-.01522	-.00258

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.01000	.01000	.01000				
Low Limit	-.01000	-.01000	-.01000				

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00030	.00017	.00058	-.00027	-.00169	.00579
Stddev	.00005	.00067	.00132	.00030	.00006	.00071
%RSD	16.698	385.61	225.90	110.34	3.3192	12.304

#1	-.00025	-.00021	-.00089	-.00062	-.00167	.00505
#2	-.00035	.00094	.00166	-.00017	-.00176	.00585
#3	-.00029	-.00022	.00098	-.00004	-.00166	.00647

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	26270.	40999.
Stddev	117.	222.
%RSD	.44473	.54228

#1	26142.	40915.
#2	26370.	40831.
#3	26298.	41251.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110034943SDL Acquired: 10/20/2011 17:00:37 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: 25 Custom ID2: Custom ID3:
 Comment: WG379512-02

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00090	11.891	.00616	.00436	.13116	.00069	3.8915
Stddev	.00041	.038	.00062	.00053	.00072	.00002	.0189
%RSD	45.597	.32266	10.125	12.105	.54963	2.4753	.48604

#1	.00090	11.935	.00640	.00443	.13166	.00070	3.9103
#2	.00049	11.866	.00663	.00381	.13033	.00070	3.8725
#3	.00131	11.872	.00545	.00486	.13148	.00067	3.8917

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00030	.00589	.01816	.01153	15.153	.84695	.00359
Stddev	.00007	.00006	.00006	.00031	.098	.02760	.00075
%RSD	25.376	1.0645	.34367	2.6684	.64892	3.2589	20.861

#1	.00024	.00583	.01815	.01141	15.263	.81963	.00415
#2	.00026	.00590	.01809	.01188	15.072	.84639	.00274
#3	.00038	.00595	.01822	.01130	15.126	.87482	.00388

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.3827	.35659	-.00175	.10506	.01316	.29493	.03584
Stddev	.0175	.00117	.00003	.00235	.00041	.00255	.00097
%RSD	1.2675	.32788	1.6164	2.2398	3.1268	.86353	2.6962

#1	1.3978	.35789	-.00178	.10362	.01278	.29751	.03642
#2	1.3868	.35563	-.00175	.10378	.01309	.29242	.03472
#3	1.3635	.35626	-.00173	.10777	.01360	.29487	.03637

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 High Limit
 Low Limit



Approved: October 21, 2011
Emin D. Long

Sample Name: L1110034943SDL Acquired: 10/20/2011 17:00:37 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: 25 Custom ID2: Custom ID3:
 Comment: WG379512-02

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 19.797	F 16.843	F -653.06	-0.00370	-0.00436	18.169	-0.00257
Stddev	7.729	.100	1.99	.00104	.00077	.140	.00024
%RSD	39.039	.59187	.30413	28.002	17.650	.77140	9.4796

#1	10.976	16.729	-654.62	-0.00490	-0.00514	18.200	-0.00251
#2	25.380	16.913	-650.83	-0.00318	-0.00360	18.290	-0.00284
#3	23.036	16.887	-653.75	-0.00303	-0.00433	18.015	-0.00237

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000	9.0000	9.0000				
Low Limit	-0.00400	-0.00400	-0.00400				

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05511	.03880	.00088	.02475	.09112	.00652
Stddev	.00026	.00083	.00134	.00011	.00045	.00020
%RSD	.46281	2.1332	151.87	.45484	.49148	3.0190

#1	.05539	.03910	.00126	.02488	.09063	.00630
#2	.05488	.03943	-.00061	.02473	.09124	.00664
#3	.05506	.03786	.00199	.02465	.09150	.00664

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	26428.	41467.
Stddev	55.	244.
%RSD	.20875	.58923

#1	26428.	41252.
#2	26373.	41733.
#3	26483.	41414.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110034944 Acquired: 10/20/2011 17:03:58 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00671	255.67	.13456	.06093	1.9434	.01650	29.927
Stddev	.00018	1.53	.00149	.00117	.0090	.00007	.192
%RSD	2.6342	.59784	1.1076	1.9143	.46268	.40247	.64197

#1	.00655	256.55	.13625	.06084	1.9523	.01643	30.078
#2	.00669	256.56	.13397	.06214	1.9438	.01656	29.993
#3	.00690	253.91	.13345	.05981	1.9343	.01652	29.711

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00114	.24851	.35876	.20243	429.69	14.014	.17947
Stddev	.00007	.00008	.00078	.00208	4.44	.076	.00266
%RSD	5.9565	.03256	.21609	1.0292	1.0323	.54410	1.4810

#1	.00107	.24842	.35856	.20108	434.01	14.042	.18198
#2	.00114	.24857	.35961	.20139	429.90	14.072	.17975
#3	.00120	.24854	.35810	.20483	425.14	13.927	.17668

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	25.479	18.992	.00981	1.0993	.35788	3.3646	.37474
Stddev	.138	.094	.00020	.0096	.00098	.0138	.00168
%RSD	.54250	.49692	2.0585	.87242	.27247	.41101	.44831

#1	25.393	19.018	.00967	1.0974	.35895	3.3787	.37630
#2	25.638	19.070	.00971	1.1097	.35705	3.3511	.37296
#3	25.405	18.887	.01004	1.0908	.35763	3.3639	.37496

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011

Emin D. Long

Sample Name: L1110034944 Acquired: 10/20/2011 17:03:58 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 29.879	F 151.25	F -6500.6	.00434	.01541	F 325.21	.01086
Stddev	6.690	.71	20.2	.00295	.00193	2.12	.00035
%RSD	22.391	.47084	.31007	67.988	12.492	.65093	3.1835

#1	34.213	151.81	-6509.9	.00373	.01357	326.56	.01058
#2	22.174	150.45	-6477.4	.00755	.01741	326.31	.01076
#3	33.250	151.50	-6514.4	.00174	.01524	322.77	.01125

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-0.0400	-0.0400	-0.0400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.33285	.40496	.02705	.50721	.69721	.15008
Stddev	.00191	.00228	.00170	.00094	.00137	.00070
%RSD	.57266	.56364	6.2987	.18610	.19604	.46340

#1	.33409	.40758	.02779	.50633	.69564	.14931
#2	.33382	.40390	.02826	.50820	.69789	.15065
#3	.33066	.40340	.02510	.50709	.69811	.15029

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	26915.	43034.
Stddev	67.	454.
%RSD	.24735	1.0560

#1	26889.	42812.
#2	26866.	42733.
#3	26991.	43557.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110034945 Acquired: 10/20/2011 17:07:16 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00740	183.38	.12551	.05610	1.6918	.01263	31.940
Stddev	.00051	.39	.00130	.00139	.0051	.00008	.091
%RSD	6.8570	.21482	1.0363	2.4812	.30040	.60678	.28456

#1	.00786	182.94	.12483	.05701	1.6921	.01258	31.904
#2	.00685	183.47	.12469	.05678	1.6866	.01272	31.873
#3	.00750	183.72	.12701	.05449	1.6967	.01258	32.044

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00999	.14005	.35961	.17039	250.72	20.126	.13936
Stddev	.00014	.00009	.00127	.00173	2.29	.059	.00201
%RSD	1.4376	.06216	.35333	1.0176	.91417	.29412	1.4424

#1	.00983	.13995	.35817	.17199	249.81	20.090	.13901
#2	.01011	.14010	.36006	.17062	253.33	20.095	.13755
#3	.01003	.14011	.36059	.16855	249.02	20.195	.14153

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	18.548	7.2613	.01156	.74887	.14493	6.0732	.57686
Stddev	.068	.0150	.00011	.00819	.00019	.0309	.00374
%RSD	.36855	.20634	.96936	1.0931	.12792	.50941	.64825

#1	18.472	7.2441	.01169	.75388	.14480	6.1050	.57766
#2	18.568	7.2683	.01147	.73942	.14514	6.0432	.58013
#3	18.605	7.2715	.01152	.75330	.14485	6.0713	.57278

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011

Emin D. Long

Sample Name: L1110034945 Acquired: 10/20/2011 17:07:16 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 38.675	F 311.08	F -15238.	.00407	.01491	F 276.94	.01109
Stddev	6.124	.49	59.	.00058	.00124	.46	.00016
%RSD	15.835	.15733	.39041	14.362	8.3418	.16649	1.4036

#1	44.750	311.28	-15284.	.00352	.01488	277.37	.01114
#2	38.771	311.44	-15261.	.00400	.01617	276.98	.01091
#3	32.503	310.53	-15171.	.00468	.01368	276.46	.01121

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-0.0400	-0.0400	-0.0400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.30728	.60721	.01614	.55219	1.8190	.13770
Stddev	.00043	.00152	.00066	.00126	.0061	.00056
%RSD	.14015	.24980	4.1045	.22809	.33599	.40969

#1	.30680	.60614	.01577	.55144	1.8229	.13722
#2	.30741	.60655	.01690	.55148	1.8221	.13757
#3	.30763	.60895	.01574	.55364	1.8119	.13832

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	27457.	43558.
Stddev	20.	86.
%RSD	.07142	.19758

#1	27479.	43651.
#2	27449.	43481.
#3	27442.	43543.



Approved: October 21, 2011

Emin D. Long

Sample Name: L1110034946 Acquired: 10/20/2011 17:10:35 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00552	208.76	.12305	.04538	1.7028	.01467	23.233
Stddev	.00033	.53	.00179	.00312	.0040	.00007	.045
%RSD	6.0322	.25236	1.4580	6.8787	.23557	.44936	.19536

#1	.00513	208.22	.12270	.04185	1.7056	.01466	23.194
#2	.00569	209.28	.12500	.04778	1.6982	.01461	23.283
#3	.00573	208.79	.12146	.04651	1.7047	.01474	23.224

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00430	.13057	.36738	.14794	289.72	15.710	.16433
Stddev	.00009	.00038	.00231	.00138	4.78	.038	.00095
%RSD	2.2015	.28979	.63002	.92999	1.6492	.24118	.57817

#1	.00428	.13049	.37003	.14916	284.36	15.679	.16339
#2	.00421	.13098	.36637	.14819	293.54	15.699	.16431
#3	.00440	.13023	.36574	.14645	291.26	15.752	.16529

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	18.794	6.3671	.01016	3.4138	.16705	3.6435	.42136
Stddev	.052	.0144	.00017	.0190	.00060	.0088	.00191
%RSD	.27737	.22580	1.6385	.55739	.35875	.24098	.45344

#1	18.738	6.3511	.01027	3.4358	.16637	3.6470	.42161
#2	18.841	6.3789	.01024	3.4033	.16749	3.6501	.42313
#3	18.803	6.3712	.00997	3.4024	.16731	3.6336	.41934

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110034946 Acquired: 10/20/2011 17:10:35 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 50.644	F 138.74	F -6240.9	.00513	.00935	F 319.89	.01049
Stddev	5.240	.53	25.5	.00295	.00205	2.31	.00056
%RSD	10.347	.38135	.40878	57.511	21.887	.72226	5.3519

#1	56.017	139.05	-6251.6	.00507	.00827	321.59	.00988
#2	45.548	139.04	-6259.2	.00810	.01171	320.82	.01060
#3	50.369	138.13	-6211.7	.00221	.00807	317.26	.01099

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-0.0400	-0.0400	-0.0400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.28113	.56732	.01635	.60385	.97459	.17141
Stddev	.00067	.00111	.00124	.00097	.00341	.00043
%RSD	.23822	.19587	7.5593	.16093	.35006	.25244

#1	.28090	.56860	.01541	.60412	.97082	.17105
#2	.28189	.56665	.01590	.60465	.97550	.17189
#3	.28061	.56670	.01775	.60277	.97746	.17129

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	27342.	44649.
Stddev	46.	268.
%RSD	.16741	.60030

#1	27385.	44780.
#2	27294.	44340.
#3	27348.	44826.



Approved: October 21, 2011

Emin D. Long

Sample Name: L1110034947 Acquired: 10/20/2011 17:13:54 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00434	180.02	.16975	.05290	1.3941	.01314	44.291
Stddev	.00036	.41	.00134	.00415	.0024	.00004	.064
%RSD	8.3044	.22895	.78874	7.8427	.16919	.26959	.14393

#1	.00401	179.58	.16852	.05080	1.3967	.01312	44.271
#2	.00429	180.09	.16957	.05768	1.3922	.01313	44.239
#3	.00473	180.39	.17117	.05022	1.3933	.01318	44.362

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00769	.10982	.25770	.22331	289.70	18.446	.18000
Stddev	.00008	.00052	.00160	.00214	2.86	.038	.00095
%RSD	1.0371	.47798	.62258	.95817	.98762	.20776	.52962

#1	.00772	.10941	.25722	.22234	287.69	18.439	.17900
#2	.00760	.10965	.25638	.22184	292.98	18.412	.18089
#3	.00775	.11041	.25948	.22577	288.45	18.488	.18011

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	32.458	8.0917	.00772	.82936	.30800	9.7031	.45776
Stddev	.231	.0187	.00015	.00487	.00246	.0354	.00281
%RSD	.71059	.23091	1.8860	.58741	.79737	.36447	.61349

#1	32.203	8.0702	.00776	.82418	.30522	9.6735	.45452
#2	32.653	8.1040	.00756	.83386	.30988	9.6935	.45932
#3	32.519	8.1009	.00784	.83005	.30889	9.7423	.45944

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110034947 Acquired: 10/20/2011 17:13:54 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 37.121	F 300.85	F -13947.	.00452	.00924	F 279.10	.00979
Stddev	3.362	1.33	63.	.00122	.00127	2.01	.00041
%RSD	9.0559	.44163	.45127	26.916	13.716	.71993	4.1536

#1	37.656	299.55	-13892.	.00327	.00871	276.78	.00939
#2	40.184	300.80	-13935.	.00570	.01069	280.24	.00977
#3	33.524	302.21	-14016.	.00461	.00833	280.29	.01020

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-.00400	-.00400	-.00400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.33407	.16248	.01288	.32627	1.8664	.08838
Stddev	.00051	.00043	.00195	.00068	.0035	.00043
%RSD	.15257	.26576	15.145	.20692	.18675	.49185

#1	.33354	.16272	.01513	.32552	1.8639	.08795
#2	.33411	.16198	.01179	.32683	1.8648	.08882
#3	.33456	.16273	.01172	.32645	1.8704	.08838

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	26863.	43793.
Stddev	43.	285.
%RSD	.15979	.65045

#1	26911.	44025.
#2	26849.	43475.
#3	26828.	43878.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110034948 Acquired: 10/20/2011 17:17:13 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00398	231.12	.10389	.05827	1.4755	.01555	36.409
Stddev	.00040	1.53	.00286	.00291	.0017	.00007	.163
%RSD	10.041	.66206	2.7499	4.9875	.11457	.44707	.44785

#1	.00424	230.03	.10059	.05932	1.4741	.01547	36.314
#2	.00352	230.46	.10548	.05499	1.4774	.01558	36.316
#3	.00417	232.87	.10559	.06051	1.4752	.01559	36.597

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00269	.16362	.29185	.23148	359.92	18.431	.23393
Stddev	.00010	.00178	.00161	.00243	4.42	.095	.00066
%RSD	3.6128	1.0899	.55187	1.0501	1.2282	.51425	.28291

#1	.00267	.16252	.29135	.22916	361.06	18.368	.23417
#2	.00261	.16268	.29055	.23128	355.04	18.386	.23318
#3	.00280	.16568	.29365	.23401	363.65	18.540	.23444

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	36.989	12.045	.00469	1.3962	.37634	4.6139	.31503
Stddev	.443	.072	.00002	.0096	.00310	.0296	.00311
%RSD	1.1976	.60136	.47044	.68497	.82303	.64058	.98762

#1	36.643	11.984	.00471	1.3967	.37477	4.6016	.31165
#2	36.836	12.025	.00467	1.3864	.37435	4.5924	.31777
#3	37.488	12.125	.00467	1.4055	.37991	4.6476	.31569

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011

Emin D. Long

Sample Name: L1110034948 Acquired: 10/20/2011 17:17:13 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 24.282	F 159.11	F -6592.6	.00181	.01238	F 289.63	.00975
Stddev	12.208	.62	24.6	.00169	.00125	2.54	.00020
%RSD	50.277	.38946	.37368	93.457	10.077	.87594	2.0177

#1	33.973	159.25	-6590.8	.00082	.01357	288.81	.00992
#2	28.302	158.43	-6568.9	.00377	.01248	287.60	.00980
#3	10.571	159.65	-6618.1	.00085	.01108	292.47	.00954

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-0.0400	-0.0400	-0.0400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.29565	.16948	.01797	.38307	1.0455	.11140
Stddev	.00102	.00096	.00117	.00179	.0033	.00074
%RSD	.34550	.56679	6.4915	.46668	.31720	.66167

#1	.29529	.16991	.01908	.38162	1.0424	.11109
#2	.29485	.16838	.01807	.38252	1.0451	.11087
#3	.29680	.17015	.01675	.38507	1.0490	.11224

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	26707.	43533.
Stddev	80.	503.
%RSD	.29866	1.1545

#1	26769.	43751.
#2	26736.	43890.
#3	26617.	42958.



Approved: October 21, 2011

Emin D. Long

Sample Name: L1110035001 Acquired: 10/20/2011 17:20:31 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00670	198.29	.12560	.05504	2.1432	.01404	49.822
Stddev	.00023	1.09	.00143	.00096	.0132	.00005	.217
%RSD	3.4893	.54804	1.1352	1.7415	.61498	.35479	.43504

#1	.00644	199.49	.12463	.05614	2.1572	.01398	50.047
#2	.00676	198.00	.12724	.05456	2.1411	.01407	49.805
#3	.00690	197.37	.12494	.05441	2.1311	.01406	49.615

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00774	.15878	.29744	.19865	314.95	18.681	.14519
Stddev	.00009	.00053	.00276	.00027	.80	.199	.00123
%RSD	1.1233	.33165	.92850	.13539	.25423	1.0674	.84503

#1	.00772	.15820	.29434	.19888	314.20	18.911	.14582
#2	.00767	.15893	.29965	.19871	315.79	18.567	.14597
#3	.00784	.15922	.29832	.19835	314.85	18.564	.14377

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	20.772	10.707	.01112	.97454	.20991	5.6532	.52555
Stddev	.110	.063	.00006	.01191	.00045	.0202	.00224
%RSD	.52992	.59063	.53507	1.2217	.21532	.35802	.42586

#1	20.889	10.776	.01114	.98821	.20970	5.6709	.52797
#2	20.756	10.690	.01117	.96896	.20959	5.6312	.52356
#3	20.671	10.653	.01106	.96644	.21042	5.6576	.52510

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011
<i>Emin D. Jong</i>

Sample Name: L1110035001 Acquired: 10/20/2011 17:20:31 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 39.985	F 255.82	F -11315.	.00539	.01285	F 452.40	.01125
Stddev	13.219	.61	92.	.00076	.00108	.54	.00047
%RSD	33.059	.23767	.81362	14.024	8.4379	.11836	4.1877

#1	46.232	256.50	-11421.	.00620	.01237	451.87	.01179
#2	24.800	255.66	-11270.	.00470	.01409	452.38	.01107
#3	48.922	255.32	-11255.	.00528	.01208	452.94	.01090

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-.00400	-.00400	-.00400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.45132	.45967	.01994	.50983	1.5508	.13756
Stddev	.00498	.00494	.00064	.00230	.0045	.00082
%RSD	1.1026	1.0757	3.2304	.45041	.29009	.59558

#1	.45698	.46523	.01975	.50722	1.5473	.13668
#2	.44934	.45802	.02066	.51155	1.5493	.13831
#3	.44764	.45576	.01941	.51070	1.5559	.13767

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	27091.	44091.
Stddev	41.	147.
%RSD	.15201	.33362

#1	27138.	43957.
#2	27061.	44068.
#3	27075.	44248.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110035002 Acquired: 10/20/2011 17:23:50 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00751	261.60	.12943	.06483	2.1652	.01691	33.427
Stddev	.00049	.94	.00258	.00107	.0019	.00010	.043
%RSD	6.5418	.35844	1.9946	1.6554	.08896	.57701	.12929

#1	.00800	260.57	.12646	.06501	2.1656	.01681	33.382
#2	.00750	261.85	.13111	.06368	2.1669	.01690	33.431
#3	.00702	262.39	.13073	.06580	2.1631	.01701	33.468

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00426	.27723	.32380	.17745	392.83	19.956	.20876
Stddev	.00003	.00010	.00188	.00157	1.78	.049	.00169
%RSD	.60867	.03653	.58047	.88640	.45389	.24630	.81029

#1	.00425	.27733	.32242	.17831	391.83	19.906	.20681
#2	.00424	.27722	.32305	.17841	394.89	19.957	.20981
#3	.00429	.27713	.32594	.17564	391.77	20.004	.20966

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.554	20.282	.01268	.93487	.29038	4.3831	.48397
Stddev	.040	.037	.00029	.00186	.00061	.0097	.00072
%RSD	.16334	.18296	2.3073	.19880	.20913	.22214	.14821

#1	24.571	20.248	.01235	.93279	.28994	4.3915	.48314
#2	24.508	20.277	.01279	.93545	.29014	4.3724	.48437
#3	24.582	20.321	.01290	.93637	.29107	4.3853	.48439

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011

Emin D. Long

Sample Name: L1110035002 Acquired: 10/20/2011 17:23:50 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 31.725	F 172.41	F -7449.8	.00374	.01720	F 351.39	.01055
Stddev	3.051	.43	38.1	.00068	.00102	.48	.00006
%RSD	9.6176	.24932	.51177	18.178	5.9397	.13785	.54119

#1	35.102	172.60	-7483.5	.00372	.01831	351.75	.01059
#2	30.904	172.72	-7457.5	.00307	.01629	350.84	.01049
#3	29.168	171.92	-7408.4	.00443	.01701	351.57	.01057

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-0.0400	-0.0400	-0.0400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.33836	.55309	.02978	.59416	1.0325	.15793
Stddev	.00131	.00098	.00047	.00301	.0033	.00098
%RSD	.38646	.17799	1.5824	.50662	.31984	.61851

#1	.33700	.55226	.03018	.59192	1.0321	.15687
#2	.33848	.55283	.02990	.59299	1.0359	.15815
#3	.33961	.55417	.02926	.59758	1.0293	.15878

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	27127.	43327.
Stddev	69.	180.
%RSD	.25257	.41644

#1	27193.	43123.
#2	27130.	43394.
#3	27057.	43465.



Approved: October 21, 2011

Emin D. Long

Sample Name: L1110035003 Acquired: 10/20/2011 17:27:08 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00759	197.19	.20632	.05714	3.9830	.01978	34.818
Stddev	.00011	.77	.00162	.00445	.0672	.00017	.160
%RSD	1.4850	.39300	.78349	7.7965	1.6873	.83995	.45983

#1	.00771	196.38	.20517	.06127	4.0222	.01963	34.704
#2	.00749	197.26	.20817	.05773	4.0213	.01976	34.749
#3	.00757	197.93	.20562	.05242	3.9054	.01996	35.001

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00742	.60993	.39115	.28304	482.54	14.802	.24466
Stddev	.00019	.00310	.00533	.00320	3.02	.039	.00017
%RSD	2.5901	.50762	1.3628	1.1292	.62649	.26048	.07111

#1	.00720	.60670	.38627	.27983	485.89	14.760	.24447
#2	.00751	.61022	.39033	.28308	481.70	14.812	.24471
#3	.00755	.61287	.39684	.28622	480.02	14.835	.24481

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	29.558	42.850	.01209	1.0577	.59994	5.6107	.77246
Stddev	.121	.482	.00017	.0028	.00601	.0515	.00411
%RSD	.40850	1.1256	1.3759	.26598	1.0021	.91765	.53172

#1	29.446	42.306	.01208	1.0546	.59307	5.5528	.77000
#2	29.686	43.020	.01226	1.0600	.60245	5.6275	.77019
#3	29.542	43.224	.01193	1.0584	.60428	5.6516	.77721

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110035003 Acquired: 10/20/2011 17:27:08 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 33.892	F 210.18	F -9301.6	.00776	.02613	F 332.04	.01121
Stddev	5.440	1.85	67.5	.00292	.00088	3.84	.00021
%RSD	16.049	.88087	.72599	37.678	3.3647	1.1578	1.8931

#1	27.877	208.45	-9234.9	.00469	.02600	327.62	.01097
#2	38.465	209.96	-9300.0	.00808	.02707	333.84	.01130
#3	35.334	212.13	-9369.9	.01052	.02532	334.65	.01137

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-0.0400	-0.0400	-0.0400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.30502	.23864	.04675	.63636	1.4215	.12666
Stddev	.00093	.00042	.00047	.00457	.0063	.00067
%RSD	.30377	.17620	.99639	.71837	.44118	.53122

#1	.30396	.23821	.04637	.63271	1.4169	.12640
#2	.30569	.23866	.04661	.63489	1.4190	.12615
#3	.30540	.23905	.04727	.64149	1.4286	.12742

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	26970.	43830.
Stddev	182.	203.
%RSD	.67340	.46409

#1	27132.	43697.
#2	27006.	43729.
#3	26774.	44064.



Approved: October 21, 2011

Emin D. Long

Sample Name: L1110035004 Acquired: 10/20/2011 17:30:42 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00634	257.97	.24094	.06671	5.5816	.02633	29.314
Stddev	.00047	1.18	.00106	.00653	.0894	.00008	.121
%RSD	7.4504	.45834	.44172	9.7914	1.6022	.29581	.41158

#1	.00597	256.61	.24052	.06063	5.4852	.02642	29.176
#2	.00687	258.70	.24015	.07362	5.6619	.02627	29.397
#3	.00618	258.61	.24215	.06589	5.5977	.02632	29.371

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00369	.72505	.58572	.29969	586.28	16.071	.29797
Stddev	.00009	.00205	.00316	.00299	8.36	.062	.00119
%RSD	2.3332	.28267	.53942	.99726	1.4255	.38588	.40005

#1	.00377	.72623	.58903	.30282	578.08	16.001	.29666
#2	.00371	.72624	.58273	.29687	594.79	16.093	.29827
#3	.00360	.72268	.58541	.29939	585.98	16.119	.29898

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	25.352	52.691	.01461	2.5523	.75418	4.9793	.70384
Stddev	.203	.758	.00014	.0190	.00131	.0272	.00260
%RSD	.80138	1.4382	.97858	.74240	.17388	.54713	.37009

#1	25.122	51.892	.01449	2.5322	.75521	5.0094	.70224
#2	25.426	52.782	.01457	2.5549	.75464	4.9720	.70684
#3	25.508	53.400	.01477	2.5698	.75271	4.9564	.70243

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110035004 Acquired: 10/20/2011 17:30:42 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 44.354	F 178.94	F -7795.7	.00830	.03206	F 337.25	.01673
Stddev	2.718	.44	30.0	.00204	.00260	1.73	.00014
%RSD	6.1275	.24349	.38441	24.592	8.1262	.51362	.81940

#1	43.119	179.17	-7815.5	.00974	.02907	339.03	.01681
#2	42.473	179.22	-7810.5	.00919	.03324	337.15	.01657
#3	47.470	178.44	-7761.3	.00596	.03386	335.57	.01682

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-0.0400	-0.0400	-0.0400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.30429	.26621	.05426	.78757	1.0414	.15484
Stddev	.00066	.00095	.00050	.00152	.0013	.00055
%RSD	.21546	.35510	.92054	.19282	.12783	.35756

#1	.30359	.26575	.05387	.78774	1.0412	.15494
#2	.30440	.26558	.05482	.78598	1.0429	.15424
#3	.30489	.26729	.05409	.78900	1.0403	.15533

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	26490.	43529.
Stddev	19.	415.
%RSD	.07320	.95447

#1	26476.	44008.
#2	26482.	43304.
#3	26512.	43274.



Approved: October 21, 2011
<i>Emin D. Long</i>

CCV

Sample Name: ~~CCB~~ Acquired: 10/20/2011 17:34:23 Type: QC
Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.40337	10.260	.42713	F .55853	.98876	.05342	10.117
Stddev	.00049	.072	.00110	.00400	.00142	.00027	.029
%RSD	.12121	.69753	.25837	.71651	.14393	.50605	.29055

#1	.40284	10.180	.42732	.55440	.98983	.05319	10.094
#2	.40380	10.283	.42812	.56239	.98714	.05372	10.108
#3	.40347	10.317	.42594	.55881	.98930	.05336	10.150

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
Value				.50000			
Range				10.000%			

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05297	.21428	.50298	.53457	3.7822	F 57.474	1.0807
Stddev	.00023	.00063	.00376	.00186	.0167	.138	.0008
%RSD	.43031	.29195	.74830	.34719	.44018	.23955	.07130

#1	.05279	.21399	.49886	.53327	3.7986	57.316	1.0799
#2	.05323	.21500	.50624	.53669	3.7653	57.533	1.0815
#3	.05290	.21385	.50385	.53374	3.7828	57.572	1.0808

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
Value						50.000	
Range						10.000%	

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.735	.51756	1.0493	F 55.280	F .56587	F 11.163	.49670
Stddev	.050	.00188	.0028	.069	.00227	.042	.00360
%RSD	.46650	.36277	.26626	.12393	.40181	.37982	.72463

#1	10.699	.51756	1.0483	55.335	.56474	11.152	.49873
#2	10.715	.51568	1.0525	55.203	.56849	11.209	.49884
#3	10.792	.51943	1.0472	55.302	.56438	11.126	.49255

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Fail	Chk Pass
Value				50.000	.50000	10.000	
Range				10.000%	10.000%	10.000%	



Approved: October 21, 2011
<i>Emin D. Long</i>

CCV

Sample Name: ~~CCB~~ Acquired: 10/20/2011 17:34:23 Type: QC
Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 28.411	F 11.228	F 15.713	F 1.3292	.41823	F 5.9151	F 1.1327
Stddev	10.171	.066	5.321	.0025	.00090	.0302	.0032
%RSD	35.798	.58879	33.861	.18987	.21548	.51087	.28527

#1	24.629	11.265	17.224	1.3269	.41724	5.8987	1.1300
#2	39.931	11.266	9.7999	1.3319	.41845	5.9500	1.1363
#3	20.673	11.151	20.114	1.3288	.41900	5.8967	1.1320

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Fail	Chk Fail
Value	10.000	10.000	10.000	1.2000		5.0000	1.0000
Range	10.000%	10.000%	10.000%	10.000%		10.000%	10.000%

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 1.1340	1.0725	F .55805	1.0841	.99200	1.0388
Stddev	.0017	.0025	.00247	.0019	.00131	.0048
%RSD	.15272	.22922	.44197	.17860	.13207	.45917

#1	1.1321	1.0710	.55624	1.0820	.99179	1.0416
#2	1.1354	1.0712	.55704	1.0858	.99340	1.0416
#3	1.1345	1.0753	.56086	1.0845	.99081	1.0333

Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
Value	1.0000		.50000			
Range	10.000%		10.000%			

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	25996.	40183.
Stddev	95.	537.
%RSD	.36708	1.3370

#1	26106.	40565.
#2	25934.	40416.
#3	25949.	39569.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: CCB Acquired: 10/20/2011 17:37:33 Type: Blank
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00056	-.01412	-.00053	-.00091	-.00067	-.00001	-.01847
Stddev	.00022	.00674	.00095	.00087	.00005	.00001	.00534
%RSD	40.342	47.741	179.40	95.250	7.3062	117.16	28.927

#1	.00071	-.00656	.00052	-.00151	-.00062	-.00002	-.02332
#2	.00066	-.01950	-.00079	.00008	-.00071	-.00001	-.01934
#3	.00030	-.01631	-.00131	-.00131	-.00067	.00000	-.01275

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00007	-.00022	-.00037	-.00078	-.00043	-.14587	-.00449
Stddev	.00007	.00007	.00026	.00032	.00228	.00371	.00080
%RSD	93.268	33.343	72.158	40.755	536.31	2.5424	17.751

#1	-.00015	-.00027	-.00021	-.00106	-.00275	-.14159	-.00502
#2	-.00003	-.00013	-.00067	-.00043	-.00035	-.14821	-.00487
#3	-.00004	-.00025	-.00021	-.00085	.00182	-.14780	-.00357

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.01299	.00001	-.00166	-.01183	-.00126	-.00702	-.00089
Stddev	.01067	.00031	.00005	.00878	.00039	.00211	.00076
%RSD	82.074	4942.6	2.9646	74.174	30.781	30.056	85.874

#1	-.00596	.00035	-.00170	-.00473	-.00081	-.00864	-.00008
#2	-.02527	-.00007	-.00167	-.00913	-.00142	-.00463	-.00099
#3	-.00776	-.00026	-.00161	-.02165	-.00153	-.00778	-.00159

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011

Emin D. Long

Sample Name: CCB Acquired: 10/20/2011 17:37:33 Type: Blank
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 22.754	F -.19541	F 7.9761	-.00267	-.00179	-.21994	-.00255
Stddev	16.300	.02937	3.9835	.00177	.00231	.08295	.00023
%RSD	71.632	15.030	49.942	66.054	129.28	37.716	8.9143

#1	38.878	-.17942	3.7892	-.00069	-.00434	-.14186	-.00281
#2	23.101	-.22930	11.719	-.00407	-.00120	-.30703	-.00238
#3	6.2845	-.17750	8.4204	-.00327	.00017	-.21095	-.00247

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.01000	.01000	.01000				
Low Limit	-.01000	-.01000	-.01000				

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00020	-.00009	-.00116	-.00019	-.00167	.00526
Stddev	.00006	.00072	.00011	.00012	.00002	.00078
%RSD	28.389	798.88	9.5821	62.552	1.2949	14.785

#1	-.00015	-.00080	-.00115	-.00033	-.00167	.00448
#2	-.00020	-.00010	-.00106	-.00014	-.00164	.00526
#3	-.00026	.00063	-.00128	-.00011	-.00169	.00603

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	27134.	40176.
Stddev	64.	161.
%RSD	.23489	.40025

#1	27072.	40330.
#2	27132.	40190.
#3	27199.	40009.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110035005 Acquired: 10/20/2011 17:41:04 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00530	258.45	.11646	.07757	2.2259	.01492	51.418
Stddev	.00024	.80	.00158	.00234	.0017	.00004	.161
%RSD	4.5898	.31070	1.3589	3.0111	.07767	.25179	.31355

#1	.00513	257.54	.11640	.07932	2.2278	.01489	51.309
#2	.00519	259.07	.11807	.07492	2.2255	.01496	51.603
#3	.00558	258.73	.11490	.07848	2.2245	.01490	51.343

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00946	.09578	.30175	.22162	290.94	33.342	.22851
Stddev	.00007	.00028	.00047	.00141	3.75	.120	.00079
%RSD	.70470	.29009	.15512	.63807	1.2891	.36002	.34765

#1	.00953	.09567	.30198	.22001	294.02	33.207	.22870
#2	.00945	.09558	.30206	.22222	286.76	33.437	.22920
#3	.00940	.09610	.30121	.22264	292.05	33.383	.22764

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	35.348	6.2621	.00560	1.0063	.30206	7.6882	.47972
Stddev	.121	.0107	.00016	.0095	.00126	.0032	.00153
%RSD	.34180	.17082	2.8552	.94740	.41570	.04224	.31790

#1	35.225	6.2501	.00564	1.0107	.30091	7.6849	.48028
#2	35.354	6.2706	.00574	1.0129	.30186	7.6885	.48089
#3	35.467	6.2657	.00542	.99538	.30340	7.6913	.47800

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110035005 Acquired: 10/20/2011 17:41:04 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 52.918	F 319.62	F -14655.	.00354	.01098	F 318.09	.01287
Stddev	6.983	.60	53.	.00126	.00297	1.47	.00055
%RSD	13.195	.18895	.36309	35.578	27.097	.46224	4.2907

#1	56.487	320.17	-14714.	.00300	.00897	318.64	.01304
#2	57.396	319.72	-14640.	.00498	.01439	319.21	.01225
#3	44.872	318.97	-14611.	.00264	.00957	316.43	.01331

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-0.0400	-0.0400	-0.0400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.41351	.25758	.01324	.42636	1.9195	.12719
Stddev	.00152	.00079	.00200	.00063	.0054	.00083
%RSD	.36642	.30741	15.125	.14874	.28324	.65505

#1	.41176	.25671	.01154	.42563	1.9249	.12639
#2	.41449	.25825	.01545	.42675	1.9197	.12711
#3	.41427	.25778	.01272	.42670	1.9140	.12805

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	26972.	43603.
Stddev	27.	60.
%RSD	.10082	.13767

#1	27001.	43670.
#2	26966.	43583.
#3	26947.	43555.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110035006 Acquired: 10/20/2011 17:44:22 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00367	271.85	.10159	.06381	2.1236	.01556	35.593
Stddev	.00023	.38	.00056	.00346	.0030	.00002	.050
%RSD	6.3080	.13852	.55211	5.4261	.14104	.12271	.14111

#1	.00361	271.76	.10210	.06774	2.1217	.01554	35.545
#2	.00392	271.52	.10099	.06123	2.1270	.01557	35.590
#3	.00347	272.26	.10169	.06245	2.1221	.01556	35.646

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00341	.07959	.30862	.19699	297.58	27.640	.23867
Stddev	.00004	.00038	.00035	.00260	3.37	.084	.00032
%RSD	1.2616	.47378	.11330	1.3176	1.1308	.30553	.13576

#1	.00341	.07916	.30832	.19399	300.00	27.605	.23834
#2	.00345	.07989	.30853	.19854	293.74	27.578	.23899
#3	.00336	.07971	.30901	.19843	299.01	27.736	.23868

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	34.930	4.4752	.00438	1.2934	.31776	4.8748	.24223
Stddev	.057	.0037	.00011	.0085	.00074	.0328	.00303
%RSD	.16281	.08187	2.4574	.65465	.23248	.67375	1.2500

#1	34.943	4.4742	.00436	1.2839	.31692	4.8923	.23891
#2	34.868	4.4722	.00428	1.2959	.31804	4.8952	.24483
#3	34.979	4.4793	.00449	1.3003	.31832	4.8369	.24296

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110035006 Acquired: 10/20/2011 17:44:22 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 43.633	F 183.09	F -8079.3	.00098	.00590	F 385.22	.01150
Stddev	14.645	.45	35.3	.00080	.00178	.91	.00019
%RSD	33.563	.24783	.43736	82.457	30.118	.23596	1.6501

#1	50.269	182.61	-8038.8	.00082	.00750	386.27	.01171
#2	26.845	183.14	-8095.2	.00026	.00620	384.81	.01141
#3	53.785	183.51	-8103.9	.00184	.00399	384.60	.01137

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-0.0400	-0.0400	-0.0400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.34443	.23841	.01231	.42668	.97658	.13119
Stddev	.00127	.00019	.00189	.00152	.00506	.00092
%RSD	.36898	.07838	15.370	.35591	.51813	.70248

#1	.34360	.23835	.01035	.42573	.97095	.13049
#2	.34379	.23862	.01246	.42589	.97806	.13084
#3	.34589	.23826	.01412	.42843	.98074	.13223

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	27280.	44263.
Stddev	48.	262.
%RSD	.17494	.59139

#1	27334.	43961.
#2	27259.	44425.
#3	27246.	44402.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110035007 Acquired: 10/20/2011 17:47:40 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00607	226.15	.13842	.07552	1.5028	.01667	47.316
Stddev	.00057	.50	.00061	.00168	.0044	.00002	.130
%RSD	9.3799	.22304	.43883	2.2284	.29104	.10277	.27374

#1	.00628	225.58	.13842	.07358	1.5008	.01665	47.185
#2	.00542	226.52	.13781	.07646	1.5079	.01668	47.444
#3	.00650	226.36	.13902	.07652	1.4999	.01668	47.317

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00806	.14627	.43145	.25378	397.30	24.303	.22010
Stddev	.00009	.00079	.00211	.00142	6.05	.021	.00091
%RSD	1.0967	.54119	.48884	.55773	1.5236	.08639	.41430

#1	.00808	.14570	.42942	.25541	390.69	24.299	.22055
#2	.00796	.14593	.43129	.25305	398.62	24.326	.22071
#3	.00814	.14717	.43363	.25288	402.58	24.284	.21905

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	34.798	8.7781	.00505	1.1387	.39830	9.0023	.53654
Stddev	.133	.0105	.00008	.0085	.00201	.0090	.00309
%RSD	.38133	.12005	1.5927	.74415	.50549	.10040	.57537

#1	34.738	8.7662	.00496	1.1409	.39774	9.0013	.53321
#2	34.707	8.7821	.00509	1.1460	.39663	8.9938	.53712
#3	34.950	8.7861	.00511	1.1294	.40054	9.0118	.53930

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011

Emin D. Long

Sample Name: L1110035007 Acquired: 10/20/2011 17:47:40 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 30.127	F 285.02	F -12915.	.00756	.00901	F 281.77	.01227
Stddev	4.547	.89	50.	.00059	.00503	1.12	.00032
%RSD	15.094	.31316	.38389	7.7483	55.833	.39850	2.6448

#1	34.705	286.03	-12969.	.00723	.00324	282.11	.01211
#2	25.611	284.68	-12904.	.00722	.01249	280.52	.01205
#3	30.065	284.35	-12872.	.00824	.01131	282.69	.01264

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-.00400	-.00400	-.00400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.36470	.21983	.01604	.44570	2.0518	.10388
Stddev	.00082	.00068	.00101	.00273	.0033	.00096
%RSD	.22400	.30993	6.3003	.61168	.16254	.92314

#1	.36471	.22007	.01650	.44255	2.0531	.10292
#2	.36552	.22036	.01674	.44723	2.0543	.10386
#3	.36388	.21906	.01488	.44731	2.0480	.10484

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	26244.	43652.
Stddev	93.	202.
%RSD	.35309	.46252

#1	26348.	43734.
#2	26214.	43801.
#3	26170.	43422.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110035008 Acquired: 10/20/2011 17:50:57 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00503	170.59	.11302	.05483	1.4217	.01280	43.679
Stddev	.00013	.23	.00255	.00448	.0049	.00009	.022
%RSD	2.6476	.13402	2.2524	8.1699	.34259	.69035	.05151

#1	.00504	170.65	.11542	.05695	1.4167	.01274	43.664
#2	.00516	170.33	.11035	.05786	1.4220	.01276	43.667
#3	.00490	170.78	.11329	.04969	1.4265	.01291	43.705

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00808	.11919	.23677	.20973	283.66	16.658	.17142
Stddev	.00008	.00019	.00196	.00244	5.18	.058	.00079
%RSD	.94669	.16111	.82731	1.1618	1.8279	.34885	.46371

#1	.00806	.11933	.23555	.20905	285.13	16.649	.17197
#2	.00802	.11897	.23572	.20770	287.95	16.605	.17177
#3	.00817	.11926	.23903	.21243	277.90	16.720	.17051

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	32.796	7.5067	.00545	.91214	.29375	7.3156	.50899
Stddev	.025	.0126	.00005	.00746	.00062	.0340	.00078
%RSD	.07695	.16793	.97858	.81817	.21187	.46529	.15279

#1	32.816	7.5040	.00550	.91589	.29334	7.3547	.50904
#2	32.805	7.4957	.00539	.90355	.29345	7.2985	.50820
#3	32.768	7.5205	.00546	.91699	.29447	7.2934	.50975

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110035008 Acquired: 10/20/2011 17:50:57 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 31.378	F 272.62	F -12471.	.00378	.01050	F 315.91	.00931
Stddev	11.676	.90	79.	.00143	.00467	.59	.00030
%RSD	37.212	.32926	.62996	37.873	44.455	.18734	3.2352

#1	40.497	273.65	-12561.	.00280	.01493	316.39	.00963
#2	35.420	272.20	-12437.	.00542	.00563	316.08	.00925
#3	18.218	272.01	-12415.	.00311	.01095	315.25	.00904

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-0.0400	-0.0400	-0.0400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.33042	.17667	.01140	.31128	1.8829	.08837
Stddev	.00064	.00100	.00074	.00127	.0096	.00012
%RSD	.19366	.56721	6.4593	.40740	.50938	.13230

#1	.33116	.17596	.01185	.31055	1.8773	.08826
#2	.33000	.17623	.01055	.31055	1.8774	.08836
#3	.33011	.17782	.01179	.31275	1.8940	.08849

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	26532.	42456.
Stddev	54.	315.
%RSD	.20402	.74280

#1	26502.	42131.
#2	26594.	42476.
#3	26499.	42761.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110035009 Acquired: 10/20/2011 17:54:18 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment: WG378979-01

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00582	225.65	.14703	.07551	1.6765	.01547	27.577
Stddev	.00018	.72	.00124	.00428	.0049	.00007	.156
%RSD	3.1394	.32117	.84533	5.6698	.29052	.45956	.56601

#1	.00598	225.96	.14606	.07316	1.6780	.01542	27.654
#2	.00585	226.17	.14660	.08045	1.6804	.01544	27.678
#3	.00562	224.82	.14843	.07292	1.6710	.01555	27.397

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00803	.15988	.27953	.24222	382.51	23.604	.23208
Stddev	.00003	.00037	.00098	.00085	2.16	.050	.00036
%RSD	.32499	.22875	.35016	.34894	.56463	.21034	.15447

#1	.00801	.15994	.27847	.24248	380.63	23.563	.23241
#2	.00801	.16021	.27974	.24290	384.87	23.590	.23170
#3	.00806	.15949	.28039	.24128	382.02	23.659	.23212

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	34.723	10.951	.00797	.99866	.35473	6.1576	.57254
Stddev	.083	.013	.00026	.00359	.00081	.0030	.00293
%RSD	.23981	.12227	3.2402	.35983	.22732	.04844	.51142

#1	34.637	10.958	.00803	.99690	.35384	6.1560	.57366
#2	34.728	10.959	.00769	.99629	.35541	6.1558	.57474
#3	34.804	10.935	.00820	1.0028	.35493	6.1611	.56921

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011

Emin D. Long

Sample Name: L1110035009 Acquired: 10/20/2011 17:54:18 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment: WG378979-01

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 36.606	F 226.14	F -10828.	.00442	.01116	F 294.10	.01074
Stddev	6.386	.48	11.	.00058	.00039	1.43	.00016
%RSD	17.446	.21227	.09813	13.164	3.5015	.48753	1.4735

#1	38.198	225.61	-10824.	.00506	.01151	292.81	.01061
#2	42.046	226.27	-10821.	.00428	.01074	293.84	.01068
#3	29.574	226.54	-10840.	.00392	.01124	295.64	.01091

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-.00400	-.00400	-.00400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.23645	.23351	.01704	.40946	2.1571	.09034
Stddev	.00049	.00008	.00133	.00214	.0060	.00042
%RSD	.20793	.03303	7.7960	.52222	.27804	.46788

#1	.23690	.23346	.01805	.40700	2.1590	.08987
#2	.23653	.23360	.01554	.41087	2.1618	.09047
#3	.23592	.23347	.01753	.41050	2.1503	.09069

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	27359.	42980.
Stddev	49.	87.
%RSD	.17904	.20181

#1	27393.	43024.
#2	27381.	43036.
#3	27303.	42880.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110035009S Acquired: 10/20/2011 17:57:35 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment: WG378979-04

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.16523	194.38	.30287	.06226	1.4544	.01460	27.092
Stddev	.00069	.46	.00173	.00108	.0027	.00007	.108
%RSD	.42038	.23451	.57022	1.7306	.18684	.50921	.40004
#1	.16444	194.81	.30178	.06312	1.4575	.01453	27.196
#2	.16550	193.90	.30486	.06105	1.4534	.01468	26.979
#3	.16574	194.44	.30195	.06260	1.4523	.01459	27.101

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02881	.13080	.26002	.44166	347.82	19.087	.19738
Stddev	.00011	.00026	.00026	.00071	1.31	.065	.00064
%RSD	.36763	.19923	.09985	.16129	.37799	.33852	.32646
#1	.02885	.13061	.25981	.44126	349.33	19.048	.19752
#2	.02868	.13109	.26031	.44123	347.00	19.051	.19795
#3	.02888	.13069	.25995	.44248	347.12	19.162	.19668

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	32.616	8.0564	.00739	.82808	.33292	5.9403	.67224
Stddev	.161	.0201	.00011	.00831	.00063	.0012	.00179
%RSD	.49416	.24963	1.5108	1.0033	.18846	.02079	.26661
#1	32.555	8.0660	.00752	.81899	.33220	5.9408	.67403
#2	32.495	8.0332	.00732	.83528	.33328	5.9389	.67224
#3	32.799	8.0698	.00733	.82998	.33329	5.9413	.67045

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 High Limit
 Low Limit



Approved: October 21, 2011
Emin D. Long

Sample Name: L1110035009S Acquired: 10/20/2011 17:57:35 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment: WG378979-04

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 45.304	F 225.08	F -10785.	.00552	.01147	F 319.80	.00996
Stddev	14.124	.47	11.	.00197	.00256	1.06	.00025
%RSD	31.176	.20692	.10208	35.655	22.278	.33291	2.5119

#1	29.896	225.30	-10781.	.00755	.01379	318.87	.00994
#2	48.380	224.55	-10777.	.00538	.00873	320.96	.00973
#3	57.637	225.40	-10798.	.00362	.01190	319.57	.01023

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-0.0400	-0.0400	-0.0400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.22477	.22251	.01400	.36500	1.8693	.08532
Stddev	.00053	.00164	.00152	.00122	.0035	.00042
%RSD	.23658	.73759	10.875	.33457	.18920	.49087

#1	.22465	.22372	.01296	.36365	1.8734	.08501
#2	.22431	.22064	.01575	.36534	1.8670	.08516
#3	.22535	.22317	.01329	.36602	1.8676	.08579

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	26943.	43451.
Stddev	27.	178.
%RSD	.10126	.40905

#1	26973.	43268.
#2	26920.	43623.
#3	26935.	43463.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110035009SD Acquired: 10/20/2011 18:00:53 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment: WG378979-05

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.16797	174.76	.30751	.05552	1.4489	.01468	24.394
Stddev	.00084	.35	.00074	.00226	.0035	.00007	.040
%RSD	.50089	.20263	.24142	4.0751	.24225	.50192	.16215
#1	.16714	174.84	.30678	.05807	1.4469	.01459	24.395
#2	.16797	174.37	.30827	.05373	1.4468	.01474	24.353
#3	.16882	175.06	.30747	.05478	1.4530	.01470	24.432

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02773	.22284	.25269	.45704	374.64	14.125	.18899
Stddev	.00006	.00030	.00203	.00251	.13	.076	.00101
%RSD	.22426	.13446	.80466	.54842	.03492	.53685	.53322
#1	.02769	.22250	.25090	.45416	374.50	14.207	.19014
#2	.02771	.22303	.25490	.45817	374.68	14.058	.18855
#3	.02780	.22300	.25228	.45878	374.75	14.109	.18827

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	30.559	15.985	.00737	.74723	.34100	5.0826	.73050
Stddev	.135	.018	.00008	.00488	.00308	.0305	.00574
%RSD	.44230	.11250	1.0306	.65309	.90178	.60057	.78580
#1	30.433	15.989	.00745	.74175	.33880	5.0641	.72682
#2	30.543	15.966	.00729	.75110	.33969	5.0657	.72756
#3	30.702	16.001	.00738	.74884	.34451	5.1178	.73711

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 High Limit
 Low Limit



Approved: October 21, 2011
Emin D. Jong

Sample Name: L1110035009SD Acquired: 10/20/2011 18:00:53 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment: WG378979-05

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 32.766	F 198.30	F -9441.1	.00602	.01261	F 375.61	.00885
Stddev	2.800	.80	79.9	.00202	.00076	.80	.00017
%RSD	8.5457	.40119	.84621	33.473	5.9953	.21409	1.8676

#1	30.879	197.51	-9367.5	.00753	.01346	374.74	.00903
#2	35.983	198.28	-9429.7	.00373	.01200	376.32	.00871
#3	31.436	199.10	-9526.1	.00681	.01238	375.77	.00882

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-0.0400	-0.0400	-0.0400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.20250	.21396	.02074	.35612	1.6029	.07418
Stddev	.00091	.00037	.00126	.00075	.0048	.00018
%RSD	.44844	.17129	6.0573	.21010	.29994	.23942

#1	.20355	.21406	.02055	.35544	1.5975	.07405
#2	.20201	.21427	.01958	.35601	1.6046	.07412
#3	.20194	.21356	.02207	.35692	1.6067	.07438

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	27013.	43471.
Stddev	17.	103.
%RSD	.06111	.23738

#1	27027.	43577.
#2	26995.	43465.
#3	27018.	43371.



Approved: October 21, 2011

Emin D. Long

Sample Name: CCV Acquired: 10/20/2011 18:04:15 Type: QC
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.40894	10.146	.43260	F .56837	.98262	.05384	10.032
Stddev	.00285	.027	.00186	.00394	.00498	.00010	.039
%RSD	.69794	.26208	.43023	.69343	.50650	.19118	.38739

#1	.41087	10.116	.43178	.57223	.97693	.05395	9.9941
#2	.41028	10.167	.43128	.56853	.98480	.05384	10.029
#3	.40566	10.156	.43473	.56435	.98614	.05374	10.072

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
Value				.50000			
Range				10.000%			

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05375	.21695	.50766	.54096	3.7566	F 56.837	1.0657
Stddev	.00021	.00030	.00050	.00090	.0123	.295	.0058
%RSD	.39594	.13707	.09841	.16591	.32642	.51972	.54355

#1	.05351	.21664	.50824	.53993	3.7425	56.613	1.0610
#2	.05380	.21724	.50737	.54155	3.7650	56.725	1.0639
#3	.05393	.21696	.50738	.54140	3.7623	57.172	1.0721

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
Value						50.000	
Range						10.000%	

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.623	.50994	1.0602	54.645	F .57164	F 11.307	.50306
Stddev	.048	.00244	.0004	.408	.00044	.029	.00020
%RSD	.45605	.47762	.03362	.74624	.07764	.25515	.03879

#1	10.582	.50838	1.0598	54.250	.57114	11.276	.50298
#2	10.610	.50870	1.0605	54.619	.57199	11.314	.50329
#3	10.676	.51275	1.0604	55.064	.57179	11.332	.50293

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass
Value					.50000	10.000	
Range					10.000%	10.000%	



Approved: October 21, 2011
<i>Erin D. Long</i>

Sample Name: CCV Acquired: 10/20/2011 18:04:15 Type: QC
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 24.978	F 11.351	F 15.537	F 1.3572	.42607	F 6.0636	F 1.1484
Stddev	8.363	.038	1.993	.0060	.00030	.1304	.0022
%RSD	33.483	.33882	12.825	.43823	.07059	2.1504	.18699

#1	34.527	11.308	16.792	1.3557	.42603	5.9147	1.1464
#2	21.451	11.382	16.580	1.3521	.42579	6.1186	1.1480
#3	18.956	11.363	13.240	1.3637	.42639	6.1575	1.1507

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Fail	Chk Fail
Value	10.000	10.000	10.000	1.2000		5.0000	1.0000
Range	10.000%	10.000%	10.000%	10.000%		10.000%	10.000%

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 1.1144	1.0563	F .56507	1.0983	.99465	1.0586
Stddev	.0054	.0044	.00338	.0055	.00160	.0121
%RSD	.48600	.41573	.59740	.50377	.16122	1.1469

#1	1.1132	1.0515	.56134	1.1032	.99439	1.0704
#2	1.1097	1.0574	.56594	1.0994	.99637	1.0594
#3	1.1203	1.0601	.56792	1.0923	.99319	1.0461

Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
Value	1.0000		.50000			
Range	10.000%		10.000%			

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	25881.	41063.
Stddev	67.	442.
%RSD	.25774	1.0754

#1	25872.	41546.
#2	25820.	40963.
#3	25952.	40679.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: CCB Acquired: 10/20/2011 18:07:24 Type: Blank
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00046	-.01219	.00062	-.00035	-.00046	-.00003	-.01020
Stddev	.00034	.00813	.00021	.00080	.00012	.00000	.00549
%RSD	72.981	66.715	33.068	227.61	25.337	12.635	53.806

#1	.00040	-.00369	.00081	-.00081	-.00058	-.00003	-.01615
#2	.00082	-.01298	.00067	.00058	-.00047	-.00003	-.00910
#3	.00016	-.01990	.00040	-.00082	-.00034	-.00002	-.00534

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00005	-.00018	-.00006	-.00088	.00168	-.13249	-.00499
Stddev	.00003	.00013	.00022	.00014	.00295	.02693	.00098
%RSD	62.011	70.239	391.74	15.670	175.92	20.323	19.708

#1	-.00002	-.00031	-.00030	-.00073	.00255	-.13119	-.00540
#2	-.00006	-.00019	.00011	-.00100	-.00161	-.10624	-.00387
#3	-.00008	-.00005	.00002	-.00092	.00409	-.16005	-.00571

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00837	-.00031	-.00199	-.00482	-.00114	-.00827	-.00095
Stddev	.01165	.00011	.00049	.00348	.00028	.00298	.00180
%RSD	139.14	34.918	24.608	72.173	24.988	36.032	188.82

#1	-.00260	-.00023	-.00182	-.00224	-.00108	-.01117	-.00029
#2	-.02178	-.00027	-.00161	-.00878	-.00089	-.00842	-.00299
#3	-.00074	-.00043	-.00254	-.00344	-.00145	-.00522	.00042

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: CCB Acquired: 10/20/2011 18:07:24 Type: Blank
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 23.359	F -.18331	F 9.1169	-.00212	-.00192	.03813	-.00241
Stddev	1.491	.05018	2.5067	.00027	.00169	.12019	.00021
%RSD	6.3818	27.374	27.495	12.759	88.233	315.22	8.8801

#1	22.707	-.12537	8.2923	-.00192	-.00215	.13037	-.00226
#2	22.305	-.21321	11.932	-.00243	-.00349	.08180	-.00266
#3	25.065	-.21133	7.1265	-.00202	-.00012	-.09779	-.00233

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.01000	.01000	.01000				
Low Limit	-.01000	-.01000	-.01000				

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00026	.00035	.00011	-.00017	-.00165	.00623
Stddev	.00005	.00030	.00016	.00031	.00001	.00084
%RSD	17.119	85.720	142.75	186.64	.77646	13.491

#1	-.00022	.00020	.00012	.00015	-.00163	.00540
#2	-.00028	.00070	.00027	-.00047	-.00166	.00621
#3	-.00030	.00016	-.00005	-.00019	-.00166	.00708

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	26595.	40172.
Stddev	143.	182.
%RSD	.53792	.45392

#1	26473.	40103.
#2	26560.	40034.
#3	26753.	40379.



Approved: October 21, 2011

Emin D. Long

Sample Name: PBS T1 Acquired: 10/20/2011 18:10:54 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment: WG378980-02

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00002	-0.1151	-0.0193	-0.0106	-0.0065	-0.0002	.01739
Stddev	.00022	.00574	.00088	.00038	.00012	.00001	.00784
%RSD	1129.7	49.882	45.666	35.275	18.214	61.762	45.059

#1	.00002	-0.1795	-0.0277	-0.0104	-0.0063	-0.0001	.02254
#2	.00024	-0.0694	-0.0101	-0.0070	-0.0054	-0.0003	.00837
#3	-0.00020	-0.0963	-0.0201	-0.0145	-0.0078	-0.0001	.02126

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00011	-0.0050	.00055	-0.0091	.00331	-.17765	-0.0483
Stddev	.00010	.00010	.00013	.00049	.00205	.03333	.00146
%RSD	88.545	19.757	24.124	53.376	61.808	18.761	30.300

#1	.00020	-0.0041	.00046	-0.0108	.00326	-.19654	-0.0365
#2	.00000	-0.0061	.00070	-0.0036	.00129	-.19723	-0.0436
#3	.00014	-0.0050	.00048	-0.0129	.00539	-.13916	-0.0647

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00486	-0.0013	-0.0194	-0.0253	-0.0019	F -.01545	-0.0068
Stddev	.00868	.00027	.00004	.00777	.00011	.00121	.00130
%RSD	178.79	204.20	1.9885	306.97	58.170	7.8447	189.99

#1	-0.00517	.00006	-0.0199	-0.1131	-0.0032	-0.01424	-0.0211
#2	.00997	-0.0045	-0.0192	.00346	-0.0013	-0.01666	.00044
#3	.00976	-0.0002	-0.0192	.00025	-0.0013	-0.01546	-0.0038

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						900.00	
Low Limit						-.00400	



Approved: October 21, 2011
<i>Erin D. Long</i>

Sample Name: PBS T1 Acquired: 10/20/2011 18:10:54 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment: WG378980-02

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 19.006	.18370	F -7.0860	-0.0098	-0.0001	1.1092	-0.00300
Stddev	5.664	.00640	1.4442	.00206	.00185	.1506	.00003
%RSD	29.800	3.4823	20.381	210.16	14396.	13.578	1.0786

#1	20.510	.18281	-5.4419	-.00334	.00147	1.2773	-.00296
#2	12.742	.19050	-7.6664	.00045	-.00208	.98657	-.00302
#3	23.766	.17780	-8.1498	-.00005	.00057	1.0637	-.00301

Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000		9.0000				
Low Limit	-.00400		-.00400				

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00010	.00107	-.00118	-.00010	.00063	.00415
Stddev	.00009	.00076	.00087	.00016	.00005	.00062
%RSD	87.202	71.231	74.172	160.03	8.2665	14.942

#1	-.00016	.00020	-.00039	-.00010	.00058	.00359
#2	.00000	.00161	-.00102	.00006	.00068	.00405
#3	-.00014	.00139	-.00212	-.00026	.00062	.00482

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	26682.	40466.
Stddev	72.	162.
%RSD	.27090	.40144

#1	26647.	40596.
#2	26765.	40284.
#3	26634.	40519.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: LCSS T1 Acquired: 10/20/2011 18:14:20 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment: WG378980-03

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.17002	-.01266	.18720	-.00077	-.00062	-.00001	.00329
Stddev	.00070	.00717	.00119	.00028	.00015	.00001	.00355
%RSD	.41020	56.630	.63526	36.392	24.542	116.34	108.02
#1	.17018	-.00479	.18589	-.00058	-.00076	-.00001	.00653
#2	.16926	-.01437	.18753	-.00109	-.00063	-.00001	-.00051
#3	.17063	-.01882	.18820	-.00064	-.00046	.00000	.00384

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02404	-.00063	.00070	.24714	.00159	-.18206	-.00532
Stddev	.00018	.00006	.00006	.00082	.00198	.02462	.00107
%RSD	.73371	9.4345	8.9428	.33358	124.12	13.521	20.198
#1	.02385	-.00063	.00077	.24655	.00220	-.16167	-.00409
#2	.02407	-.00069	.00065	.24678	.00319	-.17511	-.00606
#3	.02420	-.00057	.00069	.24808	-.00062	-.20941	-.00580

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00073	.24185	-.00192	-.00912	-.00014	F -.01317	.23257
Stddev	.00383	.00074	.00014	.00283	.00038	.00024	.00102
%RSD	525.19	.30773	7.0626	30.990	272.86	1.8384	.43911
#1	-.00130	.24222	-.00177	-.00591	-.00056	-.01322	.23187
#2	.00514	.24099	-.00199	-.01124	.00019	-.01338	.23210
#3	-.00166	.24233	-.00201	-.01021	-.00005	-.01291	.23374

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Fail Chk Pass
 High Limit 900.00
 Low Limit -.00400



Approved: October 21, 2011
Erin D. Long

Sample Name: LCSS T1 Acquired: 10/20/2011 18:14:20 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment: WG378980-03

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 11.357	.02630	2.4112	-0.0050	-0.00142	1.0907	-0.00267
Stddev	12.546	.03944	3.7546	.00117	.00163	.0361	.00031
%RSD	110.47	149.96	155.72	236.49	114.99	3.3101	11.467

#1	23.546	-.00225	5.2782	.00030	-.00325	1.0491	-.00292
#2	12.042	.07130	3.7941	.00006	-.00090	1.1091	-.00233
#3	-1.5176	.00984	-1.8387	-.00185	-.00011	1.1139	-.00277

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000						
Low Limit	-.00400						

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00023	.00051	-.00141	-.00022	.00010	.00206
Stddev	.00005	.00071	.00039	.00022	.00002	.00037
%RSD	21.500	138.31	27.601	100.16	20.746	18.128

#1	-.00018	.00059	-.00157	.00002	.00012	.00164
#2	-.00027	.00117	-.00097	-.00042	.00009	.00220
#3	-.00025	-.00023	-.00170	-.00028	.00009	.00235

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	26334.	40309.
Stddev	59.	220.
%RSD	.22329	.54485

#1	26382.	40084.
#2	26351.	40320.
#3	26268.	40523.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110035010 Acquired: 10/20/2011 18:17:43 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00625	209.86	.15639	.06299	1.6922	.01771	21.388
Stddev	.00040	1.45	.00148	.00410	.0040	.00007	.097
%RSD	6.3352	.69096	.94557	6.5083	.23451	.41564	.45168

#1	.00626	209.36	.15744	.06399	1.6904	.01771	21.366
#2	.00585	208.74	.15470	.05848	1.6895	.01764	21.304
#3	.00665	211.50	.15704	.06649	1.6968	.01779	21.493

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00352	.35440	.29528	.27911	460.58	14.301	.23472
Stddev	.00004	.00033	.00199	.00127	4.44	.088	.00121
%RSD	1.2125	.09346	.67304	.45536	.96390	.61689	.51348

#1	.00353	.35419	.29414	.27764	461.35	14.312	.23485
#2	.00347	.35422	.29411	.27989	455.80	14.208	.23346
#3	.00355	.35478	.29757	.27980	464.58	14.384	.23586

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	41.906	19.749	.01065	1.9736	.44835	4.6625	.58386
Stddev	.385	.110	.00011	.0129	.00277	.0322	.00239
%RSD	.91889	.55715	1.0446	.65364	.61814	.68999	.40917

#1	41.636	19.708	.01053	1.9725	.44687	4.6384	.58162
#2	41.735	19.665	.01064	1.9614	.45155	4.6991	.58638
#3	42.347	19.873	.01076	1.9871	.44664	4.6501	.58359

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110035010 Acquired: 10/20/2011 18:17:43 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 40.089	F 164.25	F -7658.3	.00553	.01585	F 246.84	.01022
Stddev	15.473	.57	37.5	.00104	.00173	1.50	.00011
%RSD	38.597	.34811	.48961	18.852	10.944	.60624	1.0430

#1	47.125	163.62	-7615.0	.00496	.01392	245.19	.01018
#2	22.348	164.74	-7678.5	.00674	.01726	248.10	.01035
#3	50.794	164.40	-7681.3	.00490	.01638	247.24	.01015

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-0.0400	-0.0400	-0.0400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.20501	.15928	.02547	.41520	1.3120	.10738
Stddev	.00117	.00101	.00139	.00090	.0023	.00101
%RSD	.57186	.63584	5.4673	.21695	.17550	.93815

#1	.20495	.15932	.02592	.41437	1.3098	.10652
#2	.20386	.15824	.02659	.41507	1.3118	.10712
#3	.20621	.16027	.02391	.41616	1.3144	.10849

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	26958.	43846.
Stddev	15.	149.
%RSD	.05535	.34015

#1	26942.	43864.
#2	26964.	43985.
#3	26970.	43689.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110035011 Acquired: 10/20/2011 18:21:01 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00890	210.80	.18727	.07148	3.0072	.01851	86.722
Stddev	.00026	1.18	.00149	.00435	.0241	.00012	.571
%RSD	2.9693	.55955	.79685	6.0845	.80020	.62930	.65857

#1	.00899	209.89	.18685	.07129	2.9917	.01863	86.343
#2	.00911	210.37	.18892	.07592	2.9950	.01851	86.446
#3	.00861	212.13	.18602	.06723	3.0349	.01840	87.379

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00697	.34355	.39370	.25104	455.28	15.165	.19650
Stddev	.00011	.00115	.00206	.00245	6.17	.133	.00063
%RSD	1.5681	.33493	.52444	.97613	1.3548	.87575	.31943

#1	.00706	.34466	.39600	.25373	450.57	15.040	.19578
#2	.00685	.34363	.39309	.24893	462.26	15.151	.19694
#3	.00700	.34236	.39201	.25046	453.01	15.305	.19676

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	23.734	26.631	.01298	1.0895	.41872	4.9692	.70777
Stddev	.321	.274	.00029	.0121	.00175	.0190	.00310
%RSD	1.3509	1.0286	2.2291	1.1093	.41865	.38203	.43807

#1	23.382	26.342	.01329	1.0768	.41975	4.9870	.71085
#2	23.809	26.665	.01292	1.0908	.41972	4.9713	.70780
#3	24.010	26.887	.01272	1.1009	.41670	4.9493	.70465

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011

Emin D. Long

Sample Name: L1110035011 Acquired: 10/20/2011 18:21:01 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 33.366	F 279.95	F -10257.	.00800	.01912	F 280.51	.01238
Stddev	6.520	1.25	46.	.00158	.00356	.96	.00023
%RSD	19.540	.44644	.44998	19.721	18.612	.34226	1.8278

#1	34.589	281.06	-10302.	.00953	.02323	280.25	.01247
#2	26.322	280.21	-10260.	.00808	.01686	281.57	.01256
#3	39.189	278.60	-10210.	.00638	.01728	279.70	.01213

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-.00400	-.00400	-.00400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.65240	.26789	.03349	.60805	1.5905	.13086
Stddev	.00322	.00215	.00217	.00248	.0073	.00037
%RSD	.49345	.80365	6.4810	.40762	.46219	.28404

#1	.65189	.26626	.03510	.61004	1.5989	.13083
#2	.64946	.26707	.03102	.60884	1.5873	.13124
#3	.65584	.27033	.03436	.60527	1.5852	.13050

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	26288.	43334.
Stddev	139.	617.
%RSD	.52890	1.4240

#1	26144.	44031.
#2	26299.	43110.
#3	26422.	42859.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110035012 Acquired: 10/20/2011 18:24:24 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment: WG378980-01

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00856	188.08	.19585	.07594	3.6567	.01991	33.385
Stddev	.00021	.61	.00208	.00515	.0237	.00014	.080
%RSD	2.4205	.32248	1.0609	6.7839	.64867	.67899	.24038

#1	.00838	187.49	.19775	.07121	3.6788	.02007	33.353
#2	.00852	188.70	.19616	.07518	3.6596	.01986	33.477
#3	.00878	188.05	.19363	.08143	3.6316	.01981	33.327

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00038	.37018	.28646	.25641	585.77	8.7730	.20050
Stddev	.00013	.00418	.00251	.00788	5.57	.0581	.00168
%RSD	34.570	1.1303	.87504	3.0729	.95171	.66214	.83743

#1	.00031	.37442	.28912	.26274	584.11	8.7071	.19935
#2	.00054	.37006	.28612	.25890	581.22	8.7953	.20242
#3	.00031	.36605	.28415	.24758	591.99	8.8167	.19972

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	29.396	40.982	.01105	1.5546	.57331	2.5965	.50462
Stddev	.193	.632	.00003	.0159	.00748	.0492	.00442
%RSD	.65487	1.5430	.29666	1.0195	1.3040	1.8936	.87541

#1	29.195	40.357	.01109	1.5387	.58067	2.6406	.50971
#2	29.413	40.966	.01103	1.5547	.57355	2.6054	.50224
#3	29.579	41.622	.01104	1.5704	.56572	2.5435	.50189

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110035012 Acquired: 10/20/2011 18:24:24 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment: WG378980-01

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 35.497	F 139.48	F -5482.2	.00750	.02757	F 337.22	.00955
Stddev	17.729	1.65	51.1	.00129	.00100	2.61	.00045
%RSD	49.944	1.1843	.93134	17.252	3.6184	.77342	4.6945

#1	48.581	141.19	-5532.4	.00897	.02662	340.13	.01007
#2	42.591	139.37	-5484.0	.00653	.02861	336.44	.00932
#3	15.320	137.89	-5430.3	.00700	.02747	335.09	.00926

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-0.0400	-0.0400	-0.0400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.29757	.21162	.04438	.52990	.74197	.10378
Stddev	.00085	.00126	.00032	.00321	.00721	.00048
%RSD	.28544	.59574	.71238	.60535	.97213	.46463

#1	.29685	.21028	.04404	.53354	.74948	.10430
#2	.29850	.21181	.04445	.52867	.74133	.10336
#3	.29735	.21277	.04466	.52749	.73509	.10367

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	27012.	42957.
Stddev	180.	299.
%RSD	.66805	.69526

#1	26822.	43208.
#2	27033.	43037.
#3	27182.	42627.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110035013S Acquired: 10/20/2011 18:27:58 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment: WG378980-04

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.16964	202.13	.35989	.06739	3.3200	.02055	33.161
Stddev	.00080	.33	.00220	.00343	.0160	.00012	.031
%RSD	.46886	.16549	.61002	5.0889	.48198	.57752	.09333
#1	.16879	202.50	.35798	.06461	3.3278	.02042	33.196
#2	.17036	201.84	.35940	.06634	3.3307	.02064	33.137
#3	.16977	202.05	.36229	.07122	3.3016	.02059	33.151

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02216	.31835	.31236	.46782	594.57	10.380	.19948
Stddev	.00010	.00033	.00170	.00489	8.69	.041	.00085
%RSD	.44602	.10301	.54308	1.0459	1.4617	.39643	.42387
#1	.02221	.31809	.31063	.47305	584.67	10.427	.20046
#2	.02222	.31824	.31403	.46705	598.07	10.350	.19898
#3	.02204	.31872	.31242	.46335	600.96	10.363	.19901

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	33.472	37.400	.01118	1.6237	.57536	2.7013	.53670
Stddev	.108	.322	.00036	.0139	.00201	.0067	.00358
%RSD	.32381	.86029	3.2217	.85607	.35003	.24978	.66640
#1	33.595	37.154	.01105	1.6379	.57306	2.6995	.53787
#2	33.430	37.764	.01159	1.6102	.57625	2.7088	.53954
#3	33.390	37.282	.01091	1.6229	.57678	2.6957	.53268

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 High Limit
 Low Limit



Approved: October 21, 2011
Emin D. Jong

Sample Name: L1110035013S Acquired: 10/20/2011 18:27:58 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment: WG378980-04

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 38.779	F 137.44	F -5377.6	.00748	.02768	F 351.20	.01033
Stddev	6.060	.32	27.9	.00172	.00244	.80	.00013
%RSD	15.626	.23124	.51870	22.961	8.8246	.22787	1.2404

#1	32.222	137.78	-5409.2	.00824	.02679	351.08	.01037
#2	44.172	137.38	-5367.6	.00552	.02580	352.06	.01043
#3	39.944	137.15	-5356.1	.00869	.03044	350.47	.01019

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-.00400	-.00400	-.00400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.30179	.24984	.04330	.52017	.71706	.10370
Stddev	.00094	.00104	.00096	.00221	.00283	.00043
%RSD	.31014	.41479	2.2145	.42536	.39471	.41040

#1	.30286	.25103	.04389	.51785	.71991	.10322
#2	.30132	.24922	.04382	.52040	.71704	.10390
#3	.30117	.24925	.04220	.52226	.71425	.10400

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	27419.	44142.
Stddev	55.	189.
%RSD	.20161	.42850

#1	27478.	43932.
#2	27369.	44195.
#3	27410.	44299.



Approved: October 21, 2011

Emin D. Long

Sample Name: L1110035014SD Acquired: 10/20/2011 18:31:26 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment: WG378980-05

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.16599	186.62	.35237	.06070	4.0345	.02027	34.245
Stddev	.00064	.33	.00278	.00283	.0315	.00004	.059
%RSD	.38506	.17662	.78886	4.6638	.78130	.21865	.17315

#1	.16529	186.69	.34939	.05765	4.0693	.02023	34.216
#2	.16613	186.27	.35283	.06121	4.0265	.02027	34.206
#3	.16655	186.92	.35490	.06324	4.0077	.02032	34.313

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02421	.51823	.34621	.43685	500.71	9.1264	.16814
Stddev	.00020	.00337	.00130	.00154	4.18	.0072	.00036
%RSD	.80761	.65104	.37610	.35200	.83507	.07906	.21145

#1	.02413	.51571	.34509	.43514	499.11	9.1310	.16854
#2	.02406	.51692	.34589	.43729	497.57	9.1301	.16790
#3	.02443	.52207	.34763	.43812	505.46	9.1181	.16797

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	25.285	48.220	.01510	1.5000	.48187	2.6684	.95126
Stddev	.105	.360	.00014	.0075	.00227	.0103	.00375
%RSD	.41627	.74719	.89909	.50022	.47181	.38725	.39452

#1	25.190	47.863	.01496	1.4915	.48020	2.6565	.94976
#2	25.267	48.215	.01512	1.5058	.48094	2.6736	.94848
#3	25.398	48.583	.01523	1.5027	.48446	2.6751	.95553

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011

Emin D. Long

Sample Name: L1110035014SD Acquired: 10/20/2011 18:31:26 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment: WG378980-05

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 40.072	F 154.17	F -6131.3	.00882	.03190	F 342.20	.01042
Stddev	1.964	1.47	62.2	.00169	.00082	2.54	.00028
%RSD	4.9002	.95045	1.0138	19.153	2.5746	.74336	2.7271

#1	39.075	152.87	-6073.8	.00845	.03099	340.37	.01017
#2	38.808	153.88	-6122.9	.01067	.03212	341.12	.01037
#3	42.335	155.76	-6197.3	.00735	.03258	345.10	.01073

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-.00400	-.00400	-.00400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.32480	.21395	.04790	.57659	.78817	.11653
Stddev	.00106	.00037	.00069	.00247	.00179	.00094
%RSD	.32546	.17140	1.4509	.42825	.22699	.80241

#1	.32595	.21374	.04868	.57400	.78612	.11558
#2	.32456	.21374	.04736	.57683	.78891	.11654
#3	.32388	.21437	.04765	.57892	.78946	.11745

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	27255.	43480.
Stddev	146.	180.
%RSD	.53624	.41412

#1	27375.	43625.
#2	27298.	43538.
#3	27092.	43279.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110035015 Acquired: 10/20/2011 18:35:02 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00537	170.46	.12050	.06123	2.5902	.01532	68.004
Stddev	.00016	.10	.00165	.00244	.0119	.00003	.075
%RSD	2.9807	.06048	1.3718	3.9809	.45783	.17177	.11094

#1	.00550	170.50	.12157	.06289	2.6018	.01529	68.061
#2	.00541	170.53	.11859	.05843	2.5908	.01534	68.032
#3	.00519	170.34	.12133	.06238	2.5781	.01532	67.919

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01441	.10658	.23365	.26082	246.82	23.266	.14648
Stddev	.00009	.00064	.00168	.00275	2.89	.038	.00062
%RSD	.61921	.60080	.71908	1.0555	1.1710	.16464	.42351

#1	.01435	.10612	.23225	.25775	248.66	23.294	.14708
#2	.01436	.10631	.23551	.26162	243.49	23.222	.14652
#3	.01451	.10731	.23318	.26308	248.32	23.282	.14584

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	30.910	9.3267	.00379	1.2173	.25635	7.2427	.65718
Stddev	.070	.0138	.00021	.0118	.00122	.0037	.00671
%RSD	.22491	.14818	5.5310	.97198	.47737	.05064	1.0215

#1	30.884	9.3415	.00360	1.2295	.25555	7.2399	.65088
#2	30.857	9.3142	.00375	1.2164	.25574	7.2415	.65642
#3	30.989	9.3242	.00402	1.2059	.25776	7.2469	.66424

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110035015 Acquired: 10/20/2011 18:35:02 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 43.091	F 316.56	F -13368.	.00677	.01162	F 284.13	.01023
Stddev	15.571	.92	48.	.00167	.00321	1.11	.00023
%RSD	36.136	.29172	.36140	24.621	27.667	.38954	2.2140

#1	44.768	315.61	-13315.	.00716	.01532	284.07	.01003
#2	57.756	316.60	-13382.	.00494	.00952	283.06	.01017
#3	26.749	317.46	-13409.	.00820	.01002	285.27	.01048

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-0.00400	-0.00400	-0.00400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.57667	.20580	.01237	.39547	2.3869	.11676
Stddev	.00034	.00070	.00035	.00173	.0239	.00082
%RSD	.05954	.34024	2.8572	.43706	1.0017	.70523

#1	.57704	.20657	.01261	.39368	2.3602	.11595
#2	.57637	.20521	.01197	.39560	2.3942	.11673
#3	.57658	.20561	.01254	.39713	2.4063	.11759

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	26824.	44686.
Stddev	163.	218.
%RSD	.60943	.48812

#1	27010.	44462.
#2	26758.	44898.
#3	26703.	44698.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110035016 Acquired: 10/20/2011 18:38:21 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00347	217.37	.11287	.04897	3.1287	.01891	50.708
Stddev	.00027	.39	.00180	.00220	.0150	.00011	.015
%RSD	7.7128	.17870	1.5915	4.4840	.47854	.56288	.02998

#1	.00351	217.49	.11331	.04652	3.1193	.01893	50.705
#2	.00318	216.94	.11440	.04965	3.1459	.01900	50.724
#3	.00371	217.69	.11089	.05075	3.1207	.01879	50.695

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00657	.11376	.27638	.27694	290.59	19.906	.18326
Stddev	.00006	.00042	.00093	.00039	.41	.040	.00157
%RSD	.96214	.36712	.33593	.14243	.14247	.20225	.85456

#1	.00651	.11335	.27676	.27670	290.11	19.931	.18474
#2	.00664	.11418	.27707	.27671	290.82	19.927	.18162
#3	.00656	.11374	.27533	.27739	290.84	19.859	.18342

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	38.636	9.8893	.00305	6.5678	.31863	5.6070	.37475
Stddev	.110	.0179	.00037	.0278	.00113	.0090	.00118
%RSD	.28522	.18137	11.999	.42327	.35511	.15975	.31569

#1	38.722	9.9011	.00288	6.5670	.31829	5.5973	.37569
#2	38.512	9.8686	.00347	6.5961	.31990	5.6148	.37513
#3	38.675	9.8981	.00280	6.5405	.31771	5.6091	.37342

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011

Emin D. Long

Sample Name: L1110035016 Acquired: 10/20/2011 18:38:21 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 39.109	F 214.24	F -8883.8	.00559	.01036	F 254.22	.01019
Stddev	7.403	.41	22.2	.00024	.00215	.94	.00071
%RSD	18.931	.19221	.25019	4.2324	20.719	.36833	6.9552

#1	31.731	214.51	-8860.2	.00570	.01023	253.17	.00980
#2	39.057	214.45	-8886.9	.00575	.01257	254.96	.01101
#3	46.538	213.77	-8904.3	.00532	.00828	254.53	.00975

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-0.0400	-0.0400	-0.0400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.54863	.19394	.01510	.43886	1.4375	.13757
Stddev	.00121	.00058	.00181	.00456	.0021	.00165
%RSD	.22000	.30136	11.961	1.0399	.14637	1.1984

#1	.55001	.19383	.01508	.44084	1.4398	.13806
#2	.54778	.19458	.01331	.44211	1.4368	.13892
#3	.54810	.19343	.01692	.43365	1.4358	.13573

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	26988.	43817.
Stddev	74.	494.
%RSD	.27571	1.1274

#1	26942.	43249.
#2	26947.	44145.
#3	27074.	44058.



Approved: October 21, 2011

Emin D. Long

Sample Name: L1110035016PS Acquired: 10/20/2011 18:41:41 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment: WG379513-01

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.18472	196.02	.28475	1.0345	3.2194	.04138	49.337
Stddev	.00183	1.07	.00186	.0032	.0091	.00009	.223
%RSD	.99018	.54474	.65156	.31358	.28301	.20889	.45165

#1	.18478	196.75	.28595	1.0362	3.2264	.04142	49.509
#2	.18653	196.50	.28262	1.0307	3.2227	.04128	49.415
#3	.18287	194.79	.28570	1.0364	3.2091	.04144	49.085

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02932	.19274	.46777	.46387	261.09	44.269	.66121
Stddev	.00016	.00077	.00123	.00108	1.16	.195	.00223
%RSD	.53868	.39755	.26262	.23256	.44288	.44072	.33715

#1	.02950	.19344	.46635	.46463	262.09	44.408	.66316
#2	.02926	.19286	.46849	.46434	259.83	44.353	.66168
#3	.02920	.19192	.46846	.46264	261.37	44.046	.65878

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	39.032	8.9629	.48125	32.019	.52465	4.9376	.53533
Stddev	.046	.0309	.00179	.065	.00152	.0214	.00071
%RSD	.11789	.34501	.37181	.20328	.28936	.43287	.13224

#1	39.035	8.9878	.48285	32.012	.52616	4.9594	.53467
#2	39.076	8.9727	.48157	32.088	.52466	4.9367	.53524
#3	38.984	8.9283	.47932	31.958	.52313	4.9167	.53608

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 High Limit
 Low Limit



Approved: October 21, 2011
Emin D. Long

Sample Name: L1110035016PS Acquired: 10/20/2011 18:41:41 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment: WG379513-01

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 35.706	F 193.95	F -7789.9	.57745	.19878	F 558.16	.01098
Stddev	12.894	.56	45.1	.00451	.00285	4.28	.00034
%RSD	36.111	.29028	.57950	.78165	1.4317	.76622	3.0584

#1	23.018	194.56	-7835.3	.58098	.20125	562.58	.01118
#2	48.795	193.84	-7789.2	.57901	.19942	557.88	.01117
#3	35.304	193.45	-7745.0	.57237	.19567	554.04	.01060

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-.00400	-.00400	-.00400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.99774	.64352	.24419	.88781	1.6848	.12173
Stddev	.00657	.00153	.00238	.00105	.0036	.00046
%RSD	.65887	.23815	.97358	.11782	.21618	.37573

#1	1.0017	.64408	.24670	.88858	1.6820	.12199
#2	1.0013	.64178	.24197	.88662	1.6834	.12120
#3	.99016	.64469	.24390	.88823	1.6889	.12200

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	27491.	44256.
Stddev	45.	399.
%RSD	.16217	.90061

#1	27537.	43807.
#2	27489.	44394.
#3	27448.	44567.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: CCV Acquired: 10/20/2011 18:44:58 Type: QC
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.39128	9.8678	.41587	F .55253	.94691	.05254	9.6925
Stddev	.00078	.0521	.00087	.00198	.00410	.00007	.0066
%RSD	.20038	.52813	.20996	.35865	.43292	.12619	.06760

#1	.39097	9.8761	.41566	.55029	.94269	.05260	9.6885
#2	.39069	9.9153	.41512	.55404	.94715	.05247	9.7000
#3	.39217	9.8120	.41683	.55327	.95088	.05255	9.6889

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
Value				.50000			
Range				10.000%			

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05159	.20800	.49322	.51932	3.6354	F 56.993	1.0512
Stddev	.00011	.00026	.00114	.00036	.0118	.147	.0025
%RSD	.22187	.12420	.23044	.06977	.32422	.25713	.23568

#1	.05146	.20784	.49401	.51936	3.6254	57.162	1.0510
#2	.05166	.20787	.49192	.51965	3.6484	56.900	1.0489
#3	.05165	.20830	.49372	.51893	3.6324	56.917	1.0538

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
Value						50.000	
Range						10.000%	

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.678	.50062	1.0156	54.633	F .55491	10.954	.48011
Stddev	.052	.00132	.0010	.138	.00046	.016	.00266
%RSD	.48923	.26458	.10279	.25222	.08316	.14501	.55359

#1	10.724	.50209	1.0144	54.626	.55468	10.935	.48192
#2	10.690	.50025	1.0162	54.498	.55460	10.963	.47706
#3	10.621	.49952	1.0161	54.774	.55544	10.963	.48134

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
Value					.50000		
Range					10.000%		



Approved: October 21, 2011
<i>Emin D. Jong</i>

Sample Name: CCV Acquired: 10/20/2011 18:44:58 Type: QC
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 11.872	10.891	F 17.621	1.3025	.41030	4.8572	F 1.1109
Stddev	11.419	.071	.805	.0083	.00108	.0135	.0021
%RSD	96.184	.65253	4.5691	.63632	.26269	.27836	.18742

#1	18.112	10.833	17.311	1.2939	.40926	4.8450	1.1097
#2	18.811	10.870	17.016	1.3031	.41021	4.8717	1.1098
#3	-1.3073	10.971	18.535	1.3105	.41142	4.8549	1.1133

Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value	10.000		10.000				1.0000
Range	10.000%		10.000%				10.000%

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0892	1.0344	.54661	1.0617	.94924	1.0211
Stddev	.0003	.0002	.00167	.0024	.00420	.0027
%RSD	.03029	.02225	.30634	.22302	.44227	.26061

#1	1.0896	1.0345	.54482	1.0592	.95408	1.0237
#2	1.0891	1.0346	.54686	1.0620	.94660	1.0213
#3	1.0889	1.0342	.54814	1.0639	.94705	1.0184

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	26783.	40106.
Stddev	97.	167.
%RSD	.36271	.41520

#1	26863.	39992.
#2	26810.	40029.
#3	26675.	40297.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: CCB Acquired: 10/20/2011 18:48:07 Type: Blank
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00046	-0.01546	-0.00037	.00050	-0.00066	-0.00003	-0.00709
Stddev	.00029	.00818	.00033	.00007	.00014	.00003	.00259
%RSD	63.452	52.905	88.884	13.537	20.431	115.12	36.471

#1	.00034	-0.02393	-0.00064	.00048	-0.00053	-0.00005	-0.00730
#2	.00025	-0.01483	.00000	.00044	-0.00067	.00001	-0.00441
#3	.00079	-0.00761	-0.00046	.00057	-0.00080	-0.00004	-0.00957

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00003	-0.00017	-0.00004	-0.00043	-0.00043	-1.2881	-0.00429
Stddev	.00002	.00014	.00023	.00019	.00298	.01008	.00063
%RSD	49.500	81.247	629.62	43.865	691.66	7.8283	14.709

#1	-0.00001	-0.00016	.00000	-0.00036	-0.00228	-.13620	-0.00398
#2	-0.00004	-0.00032	.00018	-0.00028	-0.00202	-.11732	-0.00501
#3	-0.00004	-0.00004	-0.00029	-0.00064	.00301	-.13290	-0.00387

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00852	-0.00031	-0.00167	-0.00225	-0.00101	-0.00844	-0.00076
Stddev	.00191	.00005	.00005	.00179	.00031	.00300	.00109
%RSD	22.422	17.972	3.0070	79.540	30.403	35.580	143.26

#1	-0.00802	-0.00032	-0.00169	-0.00078	-0.00136	-0.01119	-0.00195
#2	-0.01063	-0.00035	-0.00172	-0.00172	-0.00087	-0.00524	-0.00051
#3	-0.00691	-0.00024	-0.00162	-0.00424	-0.00080	-0.00887	.00018

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: CCB Acquired: 10/20/2011 18:48:07 Type: Blank
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 7.5588	F -.17977	F 9.5809	-.00227	-.00165	.02420	-.00265
Stddev	14.289	.00014	1.7589	.00035	.00228	.03935	.00014
%RSD	189.03	.08042	18.358	15.464	137.62	162.59	5.2547

#1	-7.2767	-.17987	11.269	-.00189	-.00378	.05597	-.00252
#2	21.229	-.17985	9.7157	-.00235	.00075	-.01981	-.00280
#3	8.7238	-.17961	7.7585	-.00258	-.00193	.03644	-.00264

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.01000	.01000	.01000				
Low Limit	-.01000	-.01000	-.01000				

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00022	.00010	.00036	-.00019	-.00174	.00565
Stddev	.00008	.00023	.00066	.00022	.00003	.00070
%RSD	37.083	215.05	184.04	116.78	1.5912	12.346

#1	-.00022	-.00009	.00054	-.00007	-.00171	.00498
#2	-.00031	.00035	-.00037	-.00005	-.00175	.00559
#3	-.00014	.00005	.00091	-.00044	-.00176	.00637

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	26508.	41160.
Stddev	263.	176.
%RSD	.99261	.42655

#1	26799.	41330.
#2	26436.	41170.
#3	26288.	40979.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110035016SDL Acquired: 10/20/2011 18:51:36 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: 5 Custom ID2: Custom ID3:
 Comment: WG379513-02

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00119	45.868	.02521	.01004	.65250	.00407	10.673
Stddev	.00016	.276	.00044	.00087	.00515	.00002	.070
%RSD	13.449	.60117	1.7553	8.6280	.78926	.50987	.65164

#1	.00134	45.602	.02566	.00917	.64683	.00405	10.608
#2	.00120	45.848	.02521	.01003	.65377	.00409	10.666
#3	.00102	46.153	.02477	.01090	.65689	.00408	10.746

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00133	.02569	.05991	.06174	64.237	4.1494	.03482
Stddev	.00004	.00002	.00014	.00067	.329	.0136	.00089
%RSD	2.8074	.09590	.22607	1.0792	.51195	.32694	2.5458

#1	.00136	.02567	.05990	.06118	63.877	4.1633	.03547
#2	.00129	.02572	.05978	.06156	64.311	4.1362	.03381
#3	.00134	.02568	.06005	.06247	64.522	4.1487	.03517

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 High Limit
 Low Limit

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.6130	2.1376	-0.0080	1.3723	.07235	1.2737	.08718
Stddev	.0238	.0102	.00003	.0167	.00065	.0121	.00132
%RSD	.27685	.47789	4.2629	1.2154	.89695	.94596	1.5176

#1	8.5876	2.1279	-0.0078	1.3543	.07209	1.2635	.08595
#2	8.6165	2.1366	-0.0078	1.3872	.07308	1.2870	.08858
#3	8.6349	2.1483	-0.0084	1.3753	.07186	1.2705	.08702

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
 High Limit
 Low Limit



Approved: October 21, 2011

Emin D. Long

Sample Name: L1110035016SDL Acquired: 10/20/2011 18:51:36 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: 5 Custom ID2: Custom ID3:
 Comment: WG379513-02

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 33.524	F 49.769	F -2020.4	-0.0169	.00138	57.279	-0.0014
Stddev	7.062	.225	14.1	.00058	.00143	.274	.00031
%RSD	21.064	.45290	.69715	34.459	103.69	.47779	212.69

#1	34.128	49.582	-2006.0	-0.00220	-.00026	57.007	-.00017
#2	40.264	50.019	-2020.8	-.00182	.00201	57.554	-.00044
#3	26.180	49.705	-2034.2	-.00105	.00238	57.277	.00018

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000	9.0000	9.0000				
Low Limit	-.00400	-.00400	-.00400				

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.11554	.04062	.00486	.09485	.32184	.03294
Stddev	.00081	.00014	.00083	.00060	.00103	.00071
%RSD	.69787	.33650	17.055	.63581	.31921	2.1523

#1	.11483	.04047	.00514	.09422	.32105	.03224
#2	.11539	.04065	.00392	.09492	.32148	.03293
#3	.11642	.04074	.00551	.09542	.32300	.03366

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	26877.	42571.
Stddev	54.	308.
%RSD	.19912	.72369

#1	26918.	42850.
#2	26817.	42622.
#3	26898.	42240.



Approved: October 21, 2011
Emin D. Jong

Sample Name: L1110035016SDL Acquired: 10/20/2011 18:54:49 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: 25 Custom ID2: Custom ID3:
 Comment: WG379513-02

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00012	9.7647	.00622	.00010	.13552	.00081	2.2487
Stddev	.00039	.0580	.00048	.00017	.00104	.00002	.0192
%RSD	314.46	.59342	7.7745	166.92	.76655	2.2675	.85212

#1	.00055	9.7140	.00669	-.00009	.13438	.00084	2.2318
#2	.00001	9.7522	.00572	.00015	.13577	.00081	2.2448
#3	-.00019	9.8279	.00625	.00024	.13641	.00080	2.2695

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00019	.00559	.01259	.01280	13.653	.72437	.00226
Stddev	.00007	.00017	.00065	.00016	.078	.01914	.00076
%RSD	34.593	2.9538	5.1844	1.2385	.57390	2.6426	33.718

#1	.00013	.00556	.01184	.01262	13.576	.72781	.00175
#2	.00019	.00544	.01307	.01292	13.652	.74156	.00314
#3	.00026	.00576	.01284	.01287	13.732	.70374	.00190

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.8616	.45853	-.00189	.26834	.01452	.26063	.01800
Stddev	.0095	.00058	.00010	.00990	.00023	.00337	.00105
%RSD	.51306	.12674	5.3538	3.6905	1.5995	1.2935	5.8175

#1	1.8541	.45822	-.00200	.26429	.01478	.25972	.01919
#2	1.8724	.45818	-.00180	.26110	.01438	.25780	.01762
#3	1.8583	.45920	-.00187	.27963	.01438	.26436	.01720

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011

Emin D. Long

Sample Name: L1110035016SDL Acquired: 10/20/2011 18:54:49 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: 25 Custom ID2: Custom ID3:
 Comment: WG379513-02

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 31.410	F 10.755	F -432.79	-0.00387	-0.00240	11.880	-0.00302
Stddev	11.968	.043	4.02	.00155	.00236	.277	.00015
%RSD	38.102	.40251	.92805	40.072	98.346	2.3351	5.0073

#1	38.505	10.705	-437.05	-0.00335	-0.00401	11.650	-0.00284
#2	17.593	10.780	-429.07	-0.00264	-0.00348	11.801	-0.00308
#3	38.133	10.780	-432.25	-0.00561	.00031	12.188	-0.00312

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	9.0000	9.0000	9.0000				
Low Limit	-.00400	-.00400	-.00400				

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02422	.00791	.00173	.01989	.07114	.00476
Stddev	.00008	.00088	.00012	.00031	.00054	.00011
%RSD	.34775	11.140	6.8857	1.5492	.75306	2.2732

#1	.02417	.00773	.00174	.01967	.07061	.00464
#2	.02418	.00714	.00161	.01975	.07114	.00483
#3	.02432	.00887	.00185	.02024	.07168	.00482

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	26403.	39921.
Stddev	134.	301.
%RSD	.50826	.75341

#1	26532.	40163.
#2	26413.	39584.
#3	26264.	40015.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110035017 Acquired: 10/20/2011 18:58:09 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00630	172.85	.13493	.07488	3.4467	.01897	23.857
Stddev	.00002	.46	.00204	.00214	.0529	.00021	.148
%RSD	.38827	.26883	1.5100	2.8536	1.5337	1.0898	.61994

#1	.00633	172.86	.13725	.07432	3.4928	.01914	23.936
#2	.00628	173.31	.13343	.07308	3.3890	.01904	23.948
#3	.00630	172.38	.13412	.07724	3.4584	.01874	23.686

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00319	.28493	.23760	.30364	503.71	10.995	.23569
Stddev	.00009	.00192	.00283	.00119	3.56	.082	.00089
%RSD	2.7502	.67314	1.1931	.39299	.70590	.74851	.37616

#1	.00317	.28688	.24025	.30236	507.81	11.076	.23655
#2	.00328	.28486	.23793	.30472	501.86	10.997	.23573
#3	.00311	.28305	.23461	.30386	501.46	10.912	.23478

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	45.938	34.586	.00934	.83502	.58350	3.8952	.61857
Stddev	.156	.472	.00020	.00170	.00630	.0489	.00461
%RSD	.34024	1.3652	2.1466	.20386	1.0804	1.2548	.74536

#1	45.806	34.109	.00957	.83673	.59077	3.9516	.62123
#2	46.111	35.053	.00928	.83333	.58002	3.8694	.61325
#3	45.898	34.597	.00918	.83501	.57970	3.8647	.62123

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110035017 Acquired: 10/20/2011 18:58:09 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 26.199	F 142.87	F -6256.7	.00379	.02145	F 330.15	.00879
Stddev	18.865	.98	47.6	.00195	.00105	4.33	.00038
%RSD	72.004	.68823	.76110	51.585	4.8975	1.3101	4.3436

#1	36.798	143.96	-6307.0	.00227	.02189	335.14	.00923
#2	4.4189	142.05	-6212.4	.00310	.02025	327.88	.00853
#3	37.381	142.61	-6250.6	.00599	.02222	327.43	.00860

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-0.0400	-0.0400	-0.0400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.25151	.17509	.03109	.33252	1.2137	.08722
Stddev	.00126	.00069	.00167	.00259	.0014	.00032
%RSD	.50267	.39183	5.3592	.77885	.11826	.36273

#1	.25287	.17538	.02982	.33437	1.2121	.08747
#2	.25127	.17558	.03298	.33362	1.2144	.08733
#3	.25038	.17431	.03048	.32956	1.2147	.08686

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	27462.	42906.
Stddev	310.	507.
%RSD	1.1275	1.1808

#1	27235.	42406.
#2	27336.	42892.
#3	27815.	43419.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110035018 Acquired: 10/20/2011 19:01:42 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00616	168.73	.16206	.06365	3.0639	.01705	20.855
Stddev	.00010	.39	.00132	.00569	.0035	.00002	.056
%RSD	1.6386	.23203	.81515	8.9460	.11536	.11563	.26989

#1	.00605	168.63	.16326	.05721	3.0600	.01706	20.796
#2	.00616	169.16	.16065	.06801	3.0646	.01703	20.907
#3	.00625	168.40	.16228	.06573	3.0670	.01707	20.862

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00242	.23732	.26842	.28664	472.23	11.295	.22923
Stddev	.00003	.00026	.00056	.00231	6.66	.053	.00036
%RSD	1.1103	.11026	.21025	.80522	1.4094	.46929	.15778

#1	.00245	.23702	.26777	.28921	464.63	11.261	.22964
#2	.00241	.23749	.26879	.28475	477.01	11.356	.22907
#3	.00239	.23744	.26870	.28595	475.05	11.267	.22897

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	46.073	28.979	.00554	.88662	.52090	3.8146	.59540
Stddev	.185	.279	.00015	.00176	.00152	.0076	.00167
%RSD	.40100	.96176	2.7291	.19893	.29156	.19919	.28012

#1	45.942	28.685	.00537	.88756	.51918	3.8066	.59621
#2	46.284	29.014	.00565	.88771	.52149	3.8216	.59650
#3	45.993	29.239	.00561	.88458	.52204	3.8157	.59348

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110035018 Acquired: 10/20/2011 19:01:42 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 26.287	F 122.39	F -5297.9	.00461	.01709	F 302.35	.00816
Stddev	7.366	.49	14.9	.00278	.00186	1.55	.00038
%RSD	28.021	.39693	.28201	60.446	10.864	.51338	4.6348

#1	19.335	121.93	-5280.7	.00208	.01794	300.73	.00772
#2	34.007	122.90	-5307.1	.00414	.01496	303.82	.00837
#3	25.518	122.33	-5306.0	.00759	.01838	302.48	.00839

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-0.00400	-0.00400	-0.00400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.23095	.16754	.03014	.32804	1.1375	.08483
Stddev	.00050	.00070	.00112	.00095	.0044	.00009
%RSD	.21448	.41759	3.7117	.29097	.38520	.10413

#1	.23056	.16808	.02885	.32910	1.1418	.08473
#2	.23150	.16779	.03070	.32780	1.1376	.08491
#3	.23077	.16675	.03086	.32724	1.1330	.08485

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	27793.	44940.
Stddev	32.	319.
%RSD	.11428	.71023

#1	27829.	45289.
#2	27781.	44866.
#3	27769.	44664.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110035019 Acquired: 10/20/2011 19:05:08 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00668	147.20	.13778	.05235	2.2488	.01581	37.725
Stddev	.00062	.51	.00109	.00149	.0056	.00008	.162
%RSD	9.3425	.34972	.79099	2.8541	.24679	.50126	.42930

#1	.00619	146.61	.13663	.05407	2.2444	.01572	37.554
#2	.00738	147.50	.13880	.05162	2.2550	.01583	37.876
#3	.00647	147.50	.13792	.05136	2.2469	.01588	37.745

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00274	.42319	.39273	1.5306	432.52	11.599	.17273
Stddev	.00011	.00141	.00071	.0061	.86	.031	.00071
%RSD	3.8435	.33331	.18056	.39823	.19812	.26536	.40937

#1	.00277	.42163	.39198	1.5236	433.49	11.604	.17275
#2	.00262	.42355	.39339	1.5344	431.87	11.565	.17201
#3	.00282	.42438	.39282	1.5339	432.21	11.626	.17342

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	31.235	36.329	.06752	1.3199	.95609	3.7882	.42547
Stddev	.117	.094	.00007	.0040	.00023	.0170	.00186
%RSD	.37528	.25779	.10617	.30425	.02435	.44842	.43638

#1	31.100	36.409	.06744	1.3199	.95583	3.7922	.42376
#2	31.309	36.353	.06758	1.3159	.95615	3.7695	.42744
#3	31.296	36.226	.06752	1.3239	.95628	3.8028	.42522

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110035019 Acquired: 10/20/2011 19:05:08 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 34.888	F 148.75	F -5636.2	.00987	.02238	F 335.08	.01778
Stddev	1.481	.32	12.0	.00081	.00067	1.70	.00015
%RSD	4.2449	.21304	.21246	8.1882	2.9908	.50757	.82586

#1	35.688	148.62	-5622.9	.00894	.02182	336.37	.01795
#2	33.179	148.52	-5639.3	.01039	.02312	333.15	.01772
#3	35.797	149.12	-5646.3	.01028	.02220	335.72	.01767

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-0.0400	-0.0400	-0.0400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.30445	.14899	.03549	.37607	1.4863	.08210
Stddev	.00074	.00041	.00214	.00089	.0065	.00054
%RSD	.24246	.27469	6.0231	.23736	.43925	.65820

#1	.30361	.14889	.03796	.37519	1.4788	.08157
#2	.30479	.14865	.03413	.37607	1.4911	.08209
#3	.30497	.14944	.03439	.37697	1.4889	.08265

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	26421.	43091.
Stddev	79.	178.
%RSD	.29961	.41222

#1	26477.	43010.
#2	26456.	42968.
#3	26330.	43295.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110035020 Acquired: 10/20/2011 19:08:35 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00684	305.93	.25337	.08147	3.6476	.02798	39.935
Stddev	.00025	.56	.00013	.00220	.0207	.00009	.085
%RSD	3.6758	.18450	.05212	2.7009	.56854	.32608	.21335

#1	.00661	305.44	.25323	.07926	3.6695	.02796	39.842
#2	.00710	305.80	.25337	.08147	3.6283	.02790	40.009
#3	.00680	306.54	.25349	.08367	3.6451	.02808	39.954

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00237	.43942	.57019	.65298	598.64	23.282	.32260
Stddev	.00017	.00019	.00143	.00158	1.84	.122	.00144
%RSD	7.0058	.04324	.25155	.24221	.30819	.52369	.44505

#1	.00219	.43960	.57113	.65150	597.45	23.183	.32135
#2	.00239	.43922	.56854	.65465	597.71	23.246	.32417
#3	.00252	.43944	.57090	.65280	600.77	23.419	.32229

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	58.400	26.661	.02358	4.1523	.77311	5.2095	.59147
Stddev	.216	.056	.00024	.0341	.00173	.0184	.00199
%RSD	.36922	.20922	1.0303	.82208	.22427	.35314	.33719

#1	58.173	26.598	.02376	4.1138	.77474	5.2248	.59220
#2	58.425	26.706	.02331	4.1643	.77330	5.2147	.59300
#3	58.602	26.677	.02368	4.1789	.77129	5.1891	.58921

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011

Emin D. Long

Sample Name: L1110035020 Acquired: 10/20/2011 19:08:35 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 41.112	F 156.12	F -6075.9	.00795	.01779	F 332.41	.02473
Stddev	11.774	.25	11.5	.00070	.00270	.74	.00021
%RSD	28.638	.16114	.18983	8.7492	15.176	.22122	.83761

#1	28.004	156.03	-6066.8	.00852	.01944	333.22	.02453
#2	50.790	156.40	-6088.9	.00815	.01467	332.22	.02494
#3	44.543	155.91	-6072.1	.00717	.01924	331.79	.02473

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-0.0400	-0.0400	-0.0400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.36213	.20453	.03546	.73689	1.4445	.15024
Stddev	.00146	.00090	.00157	.00080	.0020	.00034
%RSD	.40398	.43816	4.4367	.10881	.14131	.22697

#1	.36067	.20405	.03552	.73608	1.4434	.15001
#2	.36211	.20398	.03701	.73769	1.4468	.15008
#3	.36360	.20556	.03386	.73690	1.4432	.15063

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	26897.	43717.
Stddev	13.	255.
%RSD	.04842	.58239

#1	26904.	43433.
#2	26906.	43925.
#3	26882.	43792.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110035021 Acquired: 10/20/2011 19:12:01 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00422	192.28	.12198	.05396	2.6778	.01735	53.621
Stddev	.00083	.30	.00103	.00172	.0095	.00004	.077
%RSD	19.609	.15464	.84100	3.1822	.35522	.24607	.14286

#1	.00517	192.02	.12316	.05475	2.6828	.01740	53.666
#2	.00381	192.21	.12128	.05199	2.6668	.01732	53.533
#3	.00368	192.60	.12150	.05513	2.6838	.01733	53.665

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00863	.12547	.27134	.27031	290.26	23.875	.15044
Stddev	.00003	.00064	.00142	.00148	.77	.059	.00034
%RSD	.36878	.51330	.52361	.54845	.26660	.24620	.22860

#1	.00866	.12618	.27062	.27196	289.94	23.808	.15009
#2	.00860	.12492	.27298	.26988	289.69	23.908	.15078
#3	.00864	.12532	.27043	.26909	291.14	23.911	.15045

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	30.640	9.9515	.00476	.80204	.28770	6.7883	.42244
Stddev	.092	.0123	.00014	.00312	.00208	.0465	.00198
%RSD	.29869	.12319	2.9173	.38903	.72190	.68455	.46942

#1	30.544	9.9383	.00492	.80047	.29009	6.8302	.42473
#2	30.650	9.9536	.00468	.80002	.28630	6.7964	.42124
#3	30.727	9.9626	.00467	.80563	.28672	6.7383	.42136

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011

Emin D. Long

Sample Name: L1110035021 Acquired: 10/20/2011 19:12:01 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 40.362	F 236.78	F -9936.3	.00720	.01045	F 256.32	.01023
Stddev	18.144	1.30	34.8	.00143	.00202	1.10	.00037
%RSD	44.954	.55070	.34977	19.870	19.342	.42937	3.6058

#1	47.374	237.67	-9965.9	.00861	.00949	257.57	.01055
#2	53.954	237.39	-9945.0	.00575	.01277	255.89	.00983
#3	19.758	235.28	-9898.0	.00725	.00908	255.49	.01031

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-.00400	-.00400	-.00400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.47666	.22648	.01281	.42990	1.6159	.13113
Stddev	.00089	.00096	.00113	.00204	.0079	.00092
%RSD	.18633	.42460	8.8024	.47499	.48751	.70230

#1	.47563	.22630	.01298	.43046	1.6247	.13146
#2	.47715	.22562	.01385	.43160	1.6136	.13185
#3	.47719	.22752	.01161	.42763	1.6094	.13010

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	27390.	43616.
Stddev	104.	214.
%RSD	.37998	.49091

#1	27270.	43369.
#2	27446.	43726.
#3	27455.	43753.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110035022 Acquired: 10/20/2011 19:15:20 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00540	233.34	.14860	.07184	3.1835	.02038	60.717
Stddev	.00037	1.74	.00075	.00095	.0169	.00008	.450
%RSD	6.8491	.74389	.50505	1.3282	.53149	.39710	.74062

#1	.00499	234.62	.14783	.07148	3.1924	.02048	61.020
#2	.00549	234.04	.14864	.07111	3.1942	.02035	60.930
#3	.00571	231.37	.14933	.07292	3.1640	.02032	60.200

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00833	.16795	.32511	.29848	364.11	29.737	.20059
Stddev	.00008	.00030	.00001	.00102	2.98	.227	.00147
%RSD	1.0067	.17773	.00342	.34108	.81909	.76493	.73304

#1	.00824	.16770	.32510	.29759	365.63	29.856	.20075
#2	.00833	.16828	.32512	.29959	360.67	29.881	.20197
#3	.00841	.16788	.32512	.29825	366.02	29.475	.19904

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	36.914	14.336	.00458	.90820	.35229	7.9497	.48060
Stddev	.219	.089	.00027	.00610	.00161	.0084	.00126
%RSD	.59303	.62198	5.8081	.67197	.45822	.10612	.26167

#1	36.789	14.368	.00450	.90697	.35092	7.9401	.48070
#2	37.167	14.405	.00437	.91482	.35188	7.9562	.47930
#3	36.786	14.236	.00488	.90280	.35407	7.9527	.48181

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110035022 Acquired: 10/20/2011 19:15:20 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 50.015	F 257.31	F -10586.	.00525	.01377	F 296.36	.01183
Stddev	8.394	.50	37.	.00099	.00260	.61	.00037
%RSD	16.783	.19624	.35268	18.916	18.868	.20604	3.1490

#1	54.418	256.85	-10546.	.00593	.01130	295.75	.01186
#2	55.292	257.85	-10591.	.00571	.01354	296.35	.01144
#3	40.336	257.22	-10621.	.00411	.01648	296.97	.01219

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-0.00400	-0.00400	-0.00400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.52865	.26570	.02195	.51324	1.8047	.14231
Stddev	.00599	.00216	.00132	.00243	.0073	.00086
%RSD	1.1334	.81391	5.9931	.47332	.40280	.60756

#1	.53336	.26635	.02339	.51604	1.8106	.14326
#2	.53069	.26747	.02081	.51174	1.8070	.14156
#3	.52191	.26329	.02164	.51194	1.7966	.14211

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	27688.	44946.
Stddev	128.	364.
%RSD	.46289	.80958

#1	27543.	45040.
#2	27787.	44545.
#3	27732.	45254.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110035023 Acquired: 10/20/2011 19:18:38 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00485	265.66	.19100	.07090	1.8803	.01942	43.475
Stddev	.00011	.46	.00075	.00556	.0051	.00004	.066
%RSD	2.3367	.17389	.39339	7.8440	.26938	.19886	.15177

#1	.00491	265.13	.19176	.06453	1.8855	.01944	43.550
#2	.00492	265.98	.19026	.07334	1.8754	.01945	43.451
#3	.00472	265.86	.19099	.07482	1.8799	.01938	43.425

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00252	.26061	.37226	.36764	464.10	25.678	.43082
Stddev	.00009	.00032	.00032	.00314	11.53	.082	.00103
%RSD	3.7410	.12138	.08657	.85485	2.4852	.31861	.23837

#1	.00261	.26031	.37209	.37099	450.81	25.599	.42980
#2	.00242	.26057	.37263	.36475	470.01	25.671	.43186
#3	.00253	.26094	.37205	.36718	471.49	25.762	.43081

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	82.220	15.619	.00120	.91261	.60071	6.8333	.36973
Stddev	.427	.031	.00022	.00527	.00235	.0208	.00286
%RSD	.51966	.19882	18.105	.57725	.39197	.30428	.77419

#1	81.727	15.583	.00103	.90666	.59886	6.8157	.36678
#2	82.442	15.640	.00145	.91446	.59991	6.8278	.36991
#3	82.490	15.634	.00112	.91670	.60336	6.8562	.37249

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110035023 Acquired: 10/20/2011 19:18:38 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 38.213	F 172.77	F -6834.4	.00242	.00818	F 243.28	.01234
Stddev	7.362	.08	11.7	.00277	.00074	.98	.00043
%RSD	19.267	.04564	.17084	114.50	9.0941	.40281	3.4589

#1	32.830	172.83	-6841.9	.00544	.00786	242.73	.01188
#2	35.206	172.80	-6840.3	.00180	.00765	242.70	.01239
#3	46.603	172.68	-6820.9	.00001	.00903	244.41	.01273

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-0.0400	-0.0400	-0.0400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.25926	.19958	.02096	.41218	1.3521	.11691
Stddev	.00028	.00086	.00139	.00054	.0034	.00034
%RSD	.10907	.43177	6.6246	.12997	.25037	.29465

#1	.25928	.20041	.02005	.41239	1.3505	.11652
#2	.25953	.19869	.02027	.41257	1.3497	.11717
#3	.25896	.19965	.02256	.41157	1.3559	.11705

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	27045.	44298.
Stddev	20.	230.
%RSD	.07296	.51978

#1	27066.	44562.
#2	27044.	44192.
#3	27026.	44139.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110035024 Acquired: 10/20/2011 19:21:55 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00403	263.16	.16501	.06599	2.2710	.01999	41.541
Stddev	.00008	1.28	.00023	.00081	.0031	.00012	.179
%RSD	2.0216	.48792	.14111	1.2335	.13681	.58472	.43007

#1	.00397	261.94	.16528	.06510	2.2674	.01990	41.377
#2	.00412	263.03	.16485	.06621	2.2721	.02013	41.516
#3	.00400	264.50	.16491	.06668	2.2733	.01995	41.731

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00120	.34125	.36628	.39591	480.58	19.473	.44457
Stddev	.00005	.00081	.00078	.00253	2.49	.037	.00196
%RSD	4.3569	.23616	.21426	.63920	.51815	.18901	.44147

#1	.00121	.34035	.36556	.39664	477.73	19.457	.44501
#2	.00124	.34189	.36712	.39310	482.33	19.448	.44242
#3	.00114	.34152	.36617	.39800	481.67	19.516	.44627

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	86.415	19.177	.00242	1.0526	.66874	6.8433	.36232
Stddev	.441	.084	.00017	.0060	.00153	.0160	.00176
%RSD	.51013	.43619	6.8960	.56926	.22813	.23406	.48674

#1	85.972	19.096	.00260	1.0559	.66729	6.8326	.36263
#2	86.420	19.171	.00241	1.0457	.67033	6.8618	.36042
#3	86.853	19.263	.00227	1.0562	.66860	6.8357	.36390

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: L1110035024 Acquired: 10/20/2011 19:21:55 Type: Unk
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 46.802	F 120.88	F -4081.9	.00226	.01125	F 282.30	.01169
Stddev	12.822	.22	19.5	.00094	.00275	.57	.00067
%RSD	27.396	.18267	.47682	41.768	24.411	.20077	5.7692

#1	61.084	120.77	-4076.3	.00226	.00831	282.46	.01230
#2	36.282	120.73	-4065.9	.00132	.01376	282.77	.01097
#3	43.040	121.13	-4103.6	.00320	.01167	281.67	.01181

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-0.0400	-0.0400	-0.0400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.25269	.18955	.02336	.40732	1.2013	.12346
Stddev	.00107	.00088	.00043	.00118	.0029	.00038
%RSD	.42314	.46339	1.8313	.28942	.24324	.30806

#1	.25229	.18874	.02317	.40689	1.1995	.12317
#2	.25189	.19048	.02385	.40865	1.1997	.12389
#3	.25391	.18943	.02306	.40641	1.2046	.12331

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	26662.	42238.
Stddev	79.	67.
%RSD	.29701	.15957

#1	26714.	42258.
#2	26571.	42163.
#3	26701.	42293.



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: CCV Acquired: 10/20/2011 19:25:17 Type: QC
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.40146	10.325	.43755	F .57700	.98480	.05441	10.141
Stddev	.00113	.020	.00166	.00245	.00125	.00012	.036
%RSD	.28229	.19089	.38023	.42437	.12707	.22248	.35230

#1	.40276	10.341	.43874	.57942	.98399	.05453	10.175
#2	.40073	10.303	.43565	.57452	.98624	.05429	10.104
#3	.40088	10.330	.43826	.57707	.98416	.05441	10.145

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
Value				.50000			
Range				10.000%			

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05428	.21925	.50267	.54650	3.7372	F 60.757	F 1.1157
Stddev	.00013	.00024	.00240	.00182	.0075	.067	.0032
%RSD	.23278	.11006	.47758	.33386	.20020	.11083	.28878

#1	.05419	.21948	.50000	.54502	3.7383	60.682	1.1123
#2	.05422	.21900	.50339	.54595	3.7293	60.778	1.1187
#3	.05442	.21927	.50463	.54854	3.7441	60.811	1.1162

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail
Value						50.000	1.0000
Range						10.000%	10.000%

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 11.088	.52310	1.0632	F 57.497	F .58811	F 11.585	.50008
Stddev	.028	.00087	.0021	.246	.00229	.040	.00108
%RSD	.24905	.16720	.19348	.42836	.38865	.34823	.21602

#1	11.063	.52290	1.0618	57.298	.58891	11.584	.49936
#2	11.084	.52234	1.0623	57.772	.58554	11.545	.50132
#3	11.117	.52406	1.0656	57.420	.58989	11.626	.49956

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Fail	Chk Pass
Value	10.000			50.000	.50000	10.000	
Range	10.000%			10.000%	10.000%	10.000%	



Approved: October 21, 2011
<i>Erin D. Long</i>

Sample Name: CCV Acquired: 10/20/2011 19:25:17 Type: QC
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 11.073	F 11.578	F 21.578	F 1.3752	.42688	5.1825	F 1.1826
Stddev	1.620	.036	2.642	.0049	.00221	.1463	.0010
%RSD	14.629	.30931	12.245	.35837	.51654	2.8231	.08482

#1	11.831	11.615	18.923	1.3706	.42476	5.3443	1.1825
#2	12.175	11.575	24.208	1.3745	.42672	5.0596	1.1816
#3	9.2134	11.544	21.603	1.3804	.42916	5.1435	1.1836

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail
Value	10.000	10.000	10.000	1.2000			1.0000
Range	10.000%	10.000%	10.000%	10.000%			10.000%

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 1.1697	1.0938	F .57557	F 1.1040	.99366	1.0562
Stddev	.0011	.0004	.00465	.0035	.00162	.0096
%RSD	.09565	.04010	.80851	.32012	.16303	.90991

#1	1.1701	1.0934	.57020	1.1080	.99215	1.0669
#2	1.1685	1.0939	.57829	1.1011	.99537	1.0535
#3	1.1706	1.0943	.57822	1.1029	.99345	1.0482

Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass
Value	1.0000		.50000	1.0000		
Range	10.000%		10.000%	10.000%		

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	25490.	38487.
Stddev	16.	264.
%RSD	.06183	.68596

#1	25472.	38692.
#2	25497.	38581.
#3	25501.	38189.



Approved: October 21, 2011
<i>Erin D. Long</i>

Sample Name: CCB Acquired: 10/20/2011 19:28:27 Type: Blank
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00011	-.01159	-.00062	-.00117	-.00088	-.00003	-.00779
Stddev	.00009	.00728	.00057	.00081	.00007	.00002	.00068
%RSD	82.695	62.831	91.266	68.991	8.5321	75.310	8.6927

#1	.00001	-.00863	-.00079	-.00083	-.00091	-.00004	-.00857
#2	.00013	-.00625	-.00109	-.00209	-.00079	.00000	-.00730
#3	.00020	-.01988	.00001	-.00059	-.00094	-.00003	-.00751

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00004	-.00015	-.00003	-.00077	-.00049	-.15431	-.00656
Stddev	.00006	.00006	.00047	.00028	.00242	.01614	.00028
%RSD	144.89	36.529	1463.8	36.814	496.98	10.457	4.2745

#1	-.00010	-.00022	-.00015	-.00049	-.00154	-.16464	-.00637
#2	-.00001	-.00013	-.00043	-.00106	-.00220	-.16256	-.00644
#3	.00000	-.00011	.00049	-.00075	.00228	-.13571	-.00688

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00477	-.00006	-.00170	-.01313	-.00145	-.00736	-.00202
Stddev	.00735	.00014	.00008	.00932	.00029	.00164	.00089
%RSD	154.03	213.12	4.5354	70.939	20.047	22.226	43.748

#1	.00322	-.00015	-.00174	-.00666	-.00149	-.00801	-.00287
#2	-.00629	-.00014	-.00161	-.02381	-.00171	-.00857	-.00210
#3	-.01125	.00009	-.00175	-.00893	-.00114	-.00550	-.00110

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011

Evan D. Long

Sample Name: CCB Acquired: 10/20/2011 19:28:27 Type: Blank
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 18.350	F -20049	F 7.9127	-0.00354	-0.00255	.00398	-0.00234
Stddev	3.098	.03060	1.6909	.00171	.00178	.12360	.00032
%RSD	16.882	15.261	21.369	48.276	69.855	3106.0	13.469

#1	15.132	-21586	8.6422	-0.00499	-0.00383	.09556	-0.00227
#2	21.312	-1.6525	9.1164	-0.00166	-0.00052	.05299	-0.00207
#3	18.606	-22034	5.9796	-0.00398	-0.00331	-.13661	-0.00269

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.01000	.01000	.01000				
Low Limit	-.01000	-.01000	-.01000				

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.00025	.00009	-0.00095	-0.00021	-0.00159	.00588
Stddev	.00003	.00020	.00088	.00021	.00007	.00072
%RSD	12.641	230.11	93.373	100.37	4.2273	12.217

#1	-0.00021	-0.00014	-0.00179	-0.00024	-0.00161	.00516
#2	-0.00027	.00023	-0.00102	-0.00040	-0.00151	.00588
#3	-0.00025	.00018	-0.00003	.00001	-0.00164	.00660

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	26560.	39657.
Stddev	452.	240.
%RSD	1.7000	.60420

#1	26224.	39929.
#2	26382.	39478.
#3	27073.	39562.



Approved: October 21, 2011
<i>Emin D. Long</i>

L1110035025

Sample Name: ~~L111035025~~ Acquired: 10/20/2011 19:31:58 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00789	133.81	.11577	.06481	1.6371	.01279	42.039
Stddev	.00015	.19	.00137	.00274	.0067	.00008	.121
%RSD	1.9244	.13963	1.1867	4.2221	.40833	.60220	.28693
#1	.00799	133.62	.11562	.06165	1.6294	.01279	41.901
#2	.00771	133.81	.11721	.06647	1.6411	.01271	42.095
#3	.00796	133.99	.11447	.06630	1.6408	.01287	42.121

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00800	.19216	.25684	.18402	385.77	12.975	.09968
Stddev	.00007	.00057	.00131	.00105	.27	.055	.00069
%RSD	.91326	.29873	.51118	.57216	.06871	.42090	.69215
#1	.00806	.19178	.25811	.18295	385.50	12.918	.09901
#2	.00792	.19188	.25549	.18506	385.78	12.981	.10039
#3	.00802	.19282	.25692	.18405	386.03	13.026	.09964

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	21.814	19.955	.00792	.42442	.28286	6.2077	.62528
Stddev	.139	.047	.00012	.00255	.00078	.0154	.00196
%RSD	.63895	.23638	1.5049	.59994	.27711	.24720	.31281
#1	21.653	19.903	.00791	.42150	.28195	6.2102	.62306
#2	21.888	19.969	.00780	.42616	.28328	6.2217	.62678
#3	21.900	19.994	.00804	.42560	.28334	6.1913	.62599

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit



Approved: October 21, 2011
Emin D. Long

L1110035025

Sample Name: ~~L111035025~~ Acquired: 10/20/2011 19:31:58 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 16.997	F 253.50	F -11358.	.00775	.01646	F 317.90	.01025
Stddev	2.814	.56	35.	.00097	.00122	.75	.00023
%RSD	16.556	.22086	.30637	12.563	7.4361	.23446	2.2079

#1	17.641	253.10	-11320.	.00794	.01764	317.22	.01030
#2	19.433	253.27	-11366.	.00861	.01655	317.79	.01044
#3	13.916	254.14	-11388.	.00670	.01520	318.70	.01000

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-.00400	-.00400	-.00400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.30913	.24648	.02238	.38113	1.5973	.09952
Stddev	.00056	.00113	.00066	.00075	.0014	.00087
%RSD	.18020	.45863	2.9333	.19754	.08497	.87524

#1	.30966	.24592	.02271	.38115	1.5966	.09879
#2	.30855	.24778	.02281	.38036	1.5988	.09930
#3	.30918	.24574	.02163	.38187	1.5964	.10049

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	26317.	40908.
Stddev	61.	105.
%RSD	.23040	.25649

#1	26272.	40964.
#2	26386.	40787.
#3	26293.	40974.



Approved: October 21, 2011
<i>Emin D. Long</i>

L1110035026

Sample Name: ~~L111035026~~ Acquired: 10/20/2011 19:35:17 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00767	207.20	.09908	.06011	1.4793	.01471	27.571
Stddev	.00019	.68	.00100	.00044	.0070	.00010	.082
%RSD	2.4291	.32592	1.0123	.72708	.47162	.68133	.29754

#1	.00779	207.06	.09811	.06057	1.4716	.01461	27.517
#2	.00777	207.94	.09901	.05970	1.4851	.01471	27.666
#3	.00746	206.61	.10011	.06006	1.4812	.01481	27.531

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00164	.21212	.24458	.17360	475.80	11.515	.15696
Stddev	.00014	.00049	.00227	.00145	3.18	.061	.00075
%RSD	8.3401	.22965	.92971	.83794	.66789	.52597	.47936

#1	.00161	.21162	.24210	.17248	472.66	11.534	.15698
#2	.00152	.21214	.24509	.17308	475.72	11.564	.15770
#3	.00179	.21259	.24656	.17525	479.02	11.447	.15620

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	26.837	24.259	.01072	.71080	.35185	4.1636	.33265
Stddev	.172	.092	.00034	.00613	.00191	.0198	.00142
%RSD	.63992	.38127	3.1241	.86210	.54305	.47607	.42616

#1	26.650	24.201	.01107	.70602	.34986	4.1422	.33325
#2	26.988	24.366	.01041	.70866	.35202	4.1672	.33366
#3	26.872	24.210	.01069	.71771	.35367	4.1813	.33103

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit



Approved: October 21, 2011
Emin D. Long

L1110035026

Sample Name: ~~L111035026~~ Acquired: 10/20/2011 19:35:17 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 36.366	F 146.86	F -6237.0	.00761	.01685	F 358.06	.00941
Stddev	7.760	.85	27.3	.00211	.00321	2.74	.00027
%RSD	21.340	.57950	.43728	27.688	19.052	.76391	2.9201

#1	34.982	146.12	-6212.7	.00535	.02054	355.52	.00912
#2	29.391	146.68	-6232.0	.00951	.01530	357.68	.00966
#3	44.725	147.79	-6266.5	.00796	.01471	360.96	.00946

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-.00400	-.00400	-.00400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.24167	.22704	.03057	.40618	.88042	.11318
Stddev	.00144	.00168	.00031	.00298	.00409	.00125
%RSD	.59468	.74039	1.0028	.73373	.46488	1.1037

#1	.24257	.22536	.03026	.40292	.87583	.11190
#2	.24243	.22872	.03057	.40683	.88172	.11326
#3	.24001	.22704	.03087	.40877	.88370	.11439

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	25984.	41695.
Stddev	103.	226.
%RSD	.39647	.54124

#1	26074.	41859.
#2	26007.	41438.
#3	25872.	41788.



Approved: October 21, 2011
<i>Emin D. Long</i>

L1110035027

Sample Name: ~~L111035027~~ Acquired: 10/20/2011 19:38:36 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00775	175.20	.16652	.07899	1.8771	.01418	767.33
Stddev	.00013	1.36	.00129	.00039	.0036	.00002	5.58
%RSD	1.6805	.77831	.77462	.49489	.18961	.13885	.72679

#1	.00761	173.70	.16777	.07922	1.8736	.01415	763.08
#2	.00780	175.56	.16659	.07853	1.8807	.01419	765.26
#3	.00785	176.35	.16520	.07920	1.8770	.01418	773.64

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01386	.16982	.32145	.29378	365.81	18.426	.18740
Stddev	.00007	.00032	.00026	.00216	1.15	.088	.00226
%RSD	.47118	.18783	.07953	.73422	.31559	.47862	1.2035

#1	.01381	.16980	.32121	.29510	364.91	18.333	.18547
#2	.01393	.17015	.32142	.29494	365.42	18.436	.18684
#3	.01384	.16951	.32172	.29129	367.11	18.508	.18988

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	46.285	15.271	.01098	1.7629	.33159	8.8438	4.2302
Stddev	.353	.084	.00020	.0044	.00028	.0130	.0086
%RSD	.76361	.55216	1.8523	.25068	.08582	.14649	.20295

#1	45.934	15.179	.01096	1.7632	.33174	8.8567	4.2312
#2	46.279	15.290	.01120	1.7671	.33176	8.8308	4.2383
#3	46.641	15.344	.01079	1.7583	.33126	8.8439	4.2212

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit



Approved: October 21, 2011
Emin D. Long

L1110035027

Sample Name: ~~L111035027~~ Acquired: 10/20/2011 19:38:36 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 36.413	F 1142.5	F -16801.	.01225	.01522	F 352.64	.02553
Stddev	9.146	2.6	79.	.00071	.00035	2.07	.00018
%RSD	25.116	.23029	.47279	5.7950	2.3133	.58764	.69511

#1	38.637	1140.4	-16859.	.01296	.01511	354.63	.02573
#2	26.361	1145.5	-16833.	.01154	.01493	350.49	.02549
#3	44.242	1141.7	-16710.	.01226	.01561	352.79	.02539

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-0.0400	-0.0400	-0.0400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.0910	.23598	.02044	.43328	2.6376	.10290
Stddev	.0775	.00091	.00071	.00176	.0072	.00050
%RSD	1.8942	.38773	3.4755	.40728	.27134	.48293

#1	4.1202	.23535	.02106	.43150	2.6354	.10232
#2	4.0031	.23703	.02061	.43503	2.6456	.10321
#3	4.1496	.23555	.01967	.43332	2.6318	.10315

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	24402.	42101.
Stddev	67.	348.
%RSD	.27519	.82740

#1	24478.	42454.
#2	24349.	42090.
#3	24380.	41758.



Approved: October 21, 2011

L1110035028

Sample Name: ~~L111035028~~ Acquired: 10/20/2011 19:42:10 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00644	155.23	.13525	.05587	1.4838	.01248	797.24
Stddev	.00020	.18	.00170	.00152	.0021	.00010	4.91
%RSD	3.1791	.11561	1.2581	2.7263	.14030	.79502	.61640

#1	.00653	155.28	.13417	.05677	1.4817	.01256	802.46
#2	.00621	155.03	.13721	.05411	1.4840	.01252	796.55
#3	.00659	155.39	.13436	.05672	1.4858	.01237	792.71

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01217	.17408	.25870	.23458	315.37	12.818	.17748
Stddev	.00003	.00126	.00071	.00205	3.73	.078	.00080
%RSD	.24571	.72191	.27412	.87413	1.1822	.60810	.45011

#1	.01215	.17393	.25914	.23511	316.51	12.743	.17675
#2	.01221	.17540	.25908	.23631	311.21	12.813	.17833
#3	.01216	.17290	.25789	.23231	318.40	12.899	.17737

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	43.107	12.139	.00918	1.0293	.30465	5.5264	3.1351
Stddev	.161	.020	.00027	.0080	.00229	.0368	.0096
%RSD	.37277	.16865	2.9956	.78217	.75160	.66655	.30747

#1	42.991	12.141	.00945	1.0292	.30569	5.5530	3.1415
#2	43.040	12.118	.00918	1.0373	.30623	5.5418	3.1398
#3	43.291	12.159	.00891	1.0212	.30202	5.4843	3.1240

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit



Approved: October 21, 2011
Emin D. Long

L1110035028

Sample Name: ~~L111035028~~ Acquired: 10/20/2011 19:42:10 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 34.245	F 1044.1	F -10711.	.00854	.01146	F 364.17	.01405
Stddev	9.864	4.1	53.	.00217	.00318	1.87	.00044
%RSD	28.803	.38979	.49742	25.408	27.748	.51353	3.1615

#1	24.570	1047.8	-10766.	.00613	.01473	365.24	.01451
#2	44.287	1044.7	-10660.	.01035	.01128	365.26	.01363
#3	33.878	1039.8	-10708.	.00915	.00838	362.01	.01400

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-.00400	-.00400	-.00400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.8832	.19636	.01588	.35405	2.0999	.09205
Stddev	.0075	.00151	.00085	.00169	.0083	.00017
%RSD	.19176	.76860	5.3490	.47870	.39663	.18804

#1	3.8894	.19463	.01572	.35563	2.1081	.09225
#2	3.8853	.19703	.01680	.35428	2.1001	.09194
#3	3.8750	.19742	.01512	.35226	2.0915	.09195

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	24823.	40312.
Stddev	61.	155.
%RSD	.24684	.38353

#1	24770.	40202.
#2	24807.	40488.
#3	24890.	40244.



Approved: October 21, 2011
<i>Emin D. Long</i>

L1110035029

Sample Name: ~~L111035029~~ Acquired: 10/20/2011 19:45:46 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00723	194.18	.18603	.06577	1.6798	.01475	30.525
Stddev	.00051	1.49	.00176	.00136	.0199	.00007	.312
%RSD	7.0514	.76553	.94632	2.0661	1.1868	.46325	1.0213

#1	.00665	195.89	.18532	.06702	1.7010	.01467	30.874
#2	.00756	193.43	.18472	.06597	1.6769	.01480	30.424
#3	.00749	193.21	.18803	.06432	1.6614	.01479	30.276

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00681	.25603	.24015	.20764	403.36	17.258	.17432
Stddev	.00001	.00055	.00176	.00144	3.21	.083	.00199
%RSD	.19067	.21607	.73224	.69170	.79508	.48079	1.1428

#1	.00682	.25665	.23813	.20618	405.65	17.351	.17604
#2	.00680	.25584	.24092	.20905	399.70	17.230	.17479
#3	.00680	.25560	.24138	.20768	404.75	17.193	.17214

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	28.084	19.243	.01194	.67689	.35909	6.8625	.52155
Stddev	.193	.080	.00007	.00323	.00158	.0227	.00157
%RSD	.68586	.41762	.57955	.47695	.44093	.33101	.30047

#1	27.868	19.335	.01202	.68012	.35999	6.8866	.52087
#2	28.144	19.197	.01190	.67367	.36002	6.8595	.52334
#3	28.239	19.195	.01191	.67687	.35726	6.8414	.52043

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit



Approved: October 21, 2011
Emin D. Long

L1110035029

Sample Name: ~~L111035029~~ Acquired: 10/20/2011 19:45:46 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 33.579	F 195.93	F -8876.8	.01114	.01660	F 251.36	.01026
Stddev	2.100	.31	3.4	.00089	.00201	1.38	.00044
%RSD	6.2538	.16061	.03806	7.9759	12.094	.55006	4.3304

#1	36.004	195.81	-8873.7	.01125	.01536	251.58	.01039
#2	32.406	195.69	-8876.4	.01196	.01552	252.61	.01063
#3	32.328	196.29	-8880.4	.01020	.01891	249.88	.00977

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-.00400	-.00400	-.00400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.25365	.21393	.02437	.40283	1.4138	.09004
Stddev	.00288	.00186	.00054	.00295	.0027	.00067
%RSD	1.1350	.86711	2.2291	.73217	.18960	.74710

#1	.25697	.21590	.02389	.39995	1.4165	.08941
#2	.25199	.21369	.02426	.40270	1.4139	.08997
#3	.25199	.21221	.02496	.40584	1.4111	.09075

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	26810.	41610.
Stddev	32.	417.
%RSD	.11904	1.0015

#1	26843.	42090.
#2	26807.	41340.
#3	26780.	41400.



Approved: October 21, 2011
<i>Emin D. Long</i>

L1110035030

Sample Name: ~~L111035030~~ Acquired: 10/20/2011 19:49:03 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00645	162.92	.10070	.05086	1.9313	.01255	874.85
Stddev	.00042	.53	.00174	.00225	.0065	.00004	9.47
%RSD	6.5511	.32742	1.7313	4.4192	.33731	.29891	1.0821

#1	.00663	162.31	.09891	.04830	1.9379	.01253	872.42
#2	.00597	163.28	.10080	.05249	1.9249	.01253	885.30
#3	.00675	163.18	.10239	.05180	1.9311	.01260	866.84

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00832	.25836	.25766	.20316	312.69	13.248	.19143
Stddev	.00012	.00074	.00101	.00072	4.00	.117	.00149
%RSD	1.4723	.28550	.39301	.35376	1.2791	.88209	.77584

#1	.00824	.25754	.25698	.20308	308.18	13.118	.19009
#2	.00826	.25855	.25717	.20249	315.81	13.282	.19118
#3	.00846	.25897	.25882	.20392	314.08	13.344	.19303

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	35.696	22.453	.00894	1.4969	.33943	5.3841	.77808
Stddev	.519	.152	.00019	.0077	.00113	.0108	.00452
%RSD	1.4539	.67771	2.1261	.51285	.33172	.20097	.58042

#1	35.096	22.279	.00915	1.4892	.33968	5.3762	.77374
#2	36.002	22.520	.00878	1.4969	.33821	5.3798	.77773
#3	35.988	22.561	.00888	1.5045	.34042	5.3964	.78275

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011
<i>Emin D. Long</i>

L1110035030

Sample Name: ~~L111035030~~ Acquired: 10/20/2011 19:49:03 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 44.163	F 1206.8	F -14469.	.00893	.01684	F 360.95	.00957
Stddev	12.568	4.4	106.	.00211	.00384	.37	.00016
%RSD	28.459	.36626	.73448	23.617	22.828	.10336	1.6808

#1	53.824	1203.7	-14351.	.01081	.01816	360.56	.00976
#2	48.712	1204.9	-14501.	.00665	.01251	361.31	.00946
#3	29.954	1211.9	-14556.	.00934	.01985	360.99	.00950

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-.00400	-.00400	-.00400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 5.1895	.22183	.02186	.33600	1.3931	.09927
Stddev	.0840	.00051	.00024	.00118	.0064	.00078
%RSD	1.6183	.23085	1.0843	.34995	.46056	.78933

#1	5.1724	.22124	.02202	.33473	1.3865	.09843
#2	5.2808	.22214	.02199	.33622	1.3933	.09939
#3	5.1154	.22212	.02159	.33705	1.3993	.09999

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	4.5000					
Low Limit	-.01000					

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	24953.	40865.
Stddev	116.	612.
%RSD	.46329	1.4975

#1	25023.	41569.
#2	25017.	40456.
#3	24820.	40570.



Approved: October 21, 2011

Emin D. Long

L1110035031

Sample Name: ~~L111035031~~ Acquired: 10/20/2011 19:52:39 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00954	229.33	.12069	.12567	3.7588	.01634	122.18
Stddev	.00038	.44	.00091	.00403	.0699	.00003	.16
%RSD	3.9405	.19151	.75244	3.2094	1.8606	.21048	.13146

#1	.00957	229.67	.12164	.13025	3.8395	.01630	122.31
#2	.00915	229.48	.11984	.12263	3.7163	.01637	122.22
#3	.00990	228.83	.12059	.12414	3.7205	.01636	122.00

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.01051	.12113	.29442	.27003	301.12	20.606	.15448
Stddev	.00019	.00041	.00140	.00224	4.80	.113	.00293
%RSD	1.7859	.33944	.47506	.82784	1.5943	.54921	1.8966

#1	.01031	.12067	.29410	.26755	306.46	20.636	.15489
#2	.01053	.12123	.29595	.27190	297.17	20.701	.15718
#3	.01068	.12148	.29321	.27064	299.73	20.481	.15136

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	32.477	7.5932	.00851	3.9673	.29963	7.4738	.65173
Stddev	.091	.0149	.00030	.0149	.00196	.0107	.00331
%RSD	.28120	.19664	3.5011	.37609	.65349	.14303	.50737

#1	32.572	7.6085	.00857	3.9772	.29753	7.4653	.64825
#2	32.389	7.5925	.00819	3.9746	.30141	7.4858	.65483
#3	32.471	7.5786	.00878	3.9501	.29996	7.4704	.65211

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit
Low Limit



Approved: October 21, 2011
Emin D. Long

L1110035031

Sample Name: ~~L111035031~~ Acquired: 10/20/2011 19:52:39 Type: Unk
Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
User: EDL Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 32.124	F 420.91	F -15931.	.01046	.01045	F 419.41	.01563
Stddev	12.740	.50	11.	.00220	.00189	.87	.00060
%RSD	39.658	.11817	.07023	21.044	18.070	.20694	3.8603

#1	22.149	420.40	-15922.	.01182	.01193	419.77	.01495
#2	46.474	421.39	-15943.	.01165	.00832	420.04	.01582
#3	27.748	420.92	-15927.	.00792	.01110	418.42	.01612

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit	9.0000	9.0000	9.0000			90.000	
Low Limit	-.00400	-.00400	-.00400			-1.0000	

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.7895	.70255	.01709	.51461	1.8040	.19232
Stddev	.0091	.00103	.00094	.00097	.0017	.00009
%RSD	.50571	.14675	5.4781	.18754	.09235	.04730

#1	1.7915	.70335	.01815	.51560	1.8035	.19242
#2	1.7974	.70292	.01670	.51456	1.8059	.19224
#3	1.7796	.70139	.01641	.51368	1.8027	.19231

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	26026.	42169.
Stddev	43.	371.
%RSD	.16368	.87932

#1	26036.	41741.
#2	25979.	42362.
#3	26063.	42403.



Approved: October 21, 2011

Emin D. Long

Sample Name: CCV Acquired: 10/20/2011 19:56:11 Type: QC
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.40114	10.388	F .44126	F .57981	.98682	.05485	10.156
Stddev	.00210	.045	.00021	.00205	.00066	.00008	.030
%RSD	.52331	.43571	.04688	.35372	.06708	.15081	.29785

#1	.40351	10.350	.44149	.57974	.98645	.05495	10.123
#2	.39949	10.438	.44117	.57780	.98642	.05481	10.163
#3	.40043	10.375	.44111	.58190	.98758	.05480	10.182

Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass
Value			.40000	.50000			
Range			10.000%	10.000%			

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05430	F .22010	.50267	.54841	3.7377	F 61.568	F 1.1261
Stddev	.00006	.00032	.00199	.00034	.0060	.292	.0025
%RSD	.10301	.14420	.39551	.06191	.15962	.47449	.22470

#1	.05434	.22030	.50474	.54827	3.7380	61.235	1.1232
#2	.05424	.22026	.50250	.54880	3.7435	61.693	1.1279
#3	.05433	.21973	.50078	.54817	3.7316	61.777	1.1273

Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail
Value		.20000				50.000	1.0000
Range		10.000%				10.000%	10.000%

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 11.238	.52463	1.0646	F 57.979	F .59236	F 11.673	.49389
Stddev	.007	.00109	.0004	.076	.00182	.002	.00216
%RSD	.06369	.20694	.03806	.13102	.30737	.01727	.43675

#1	11.237	.52349	1.0644	57.892	.59260	11.675	.49157
#2	11.231	.52477	1.0643	58.019	.59405	11.671	.49584
#3	11.246	.52565	1.0650	58.027	.59044	11.674	.49425

Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Fail	Chk Pass
Value	10.000			50.000	.50000	10.000	
Range	10.000%			10.000%	10.000%	10.000%	



Approved: October 21, 2011
<i>Emin D. Long</i>

Sample Name: CCV Acquired: 10/20/2011 19:56:11 Type: QC
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.2704	F 11.746	F 17.145	F 1.3884	.42796	5.2400	F 1.1936
Stddev	9.4376	.055	2.291	.0015	.00333	.1101	.0016
%RSD	101.80	.47107	13.363	.10995	.77915	2.1013	.13033

#1	18.371	11.793	16.459	1.3870	.42634	5.1948	1.1953
#2	9.9111	11.685	19.701	1.3883	.43180	5.1597	1.1929
#3	-4.7113	11.760	15.275	1.3900	.42575	5.3655	1.1925

Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Fail
Value		10.000	10.000	1.2000			1.0000
Range		10.000%	10.000%	10.000%			10.000%

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 1.1737	1.0953	F .57765	F 1.1090	.99088	1.0561
Stddev	.0080	.0063	.00412	.0032	.00226	.0083
%RSD	.67739	.57486	.71313	.29268	.22838	.78947

#1	1.1645	1.0881	.57308	1.1118	.98827	1.0656
#2	1.1784	1.0981	.57881	1.1054	.99225	1.0529
#3	1.1781	1.0997	.58107	1.1098	.99212	1.0499

Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass
Value	1.0000		.50000	1.0000		
Range	10.000%		10.000%	10.000%		

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	25425.	37713.
Stddev	38.	217.
%RSD	.14782	.57414

#1	25459.	37959.
#2	25432.	37633.
#3	25385.	37549.



Approved: October 21, 2011
<i>Erin D. Long</i>

Sample Name: CCB Acquired: 10/20/2011 19:59:20 Type: Blank
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00008	-.00876	-.00063	-.00068	-.00088	-.00003	-.01211
Stddev	.00031	.00638	.00067	.00095	.00013	.00001	.00486
%RSD	387.36	72.822	106.07	140.43	14.572	42.400	40.132

#1	.00040	-.00224	.00009	.00042	-.00074	-.00003	-.01074
#2	-.00023	-.01499	-.00075	-.00123	-.00099	-.00004	-.01750
#3	.00007	-.00905	-.00124	-.00123	-.00090	-.00001	-.00808

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00001	-.00016	-.00014	-.00057	.00199	-.16755	-.00607
Stddev	.00011	.00013	.00056	.00013	.00246	.01636	.00085
%RSD	788.77	83.099	388.49	22.168	123.86	9.7622	13.925

#1	.00009	-.00012	-.00033	-.00042	.00012	-.14878	-.00688
#2	-.00012	-.00005	-.00058	-.00066	.00478	-.17873	-.00615
#3	.00000	-.00030	.00048	-.00062	.00107	-.17515	-.00519

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00597	-.00009	-.00170	-.02481	-.00146	-.00974	-.00087
Stddev	.00168	.00030	.00010	.00561	.00007	.00138	.00150
%RSD	28.096	345.75	5.8579	22.601	4.5042	14.132	172.47

#1	-.00788	.00012	-.00174	-.02048	-.00145	-.01092	-.00254
#2	-.00471	.00004	-.00159	-.02280	-.00140	-.00823	-.00041
#3	-.00533	-.00042	-.00178	-.03114	-.00153	-.01006	.00035

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							



Approved: October 21, 2011
<i>Evan D. Long</i>

Sample Name: CCB Acquired: 10/20/2011 19:59:20 Type: Blank
 Method: ICP-THERMO2_6010_200.7(v1607) Mode: CONC Corr. Factor: 1.000000
 User: EDL Custom ID1: Custom ID2: Custom ID3:
 Comment:

Elem	Rb7800	S_1807	S_1820	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 20.707	F -.18253	F 7.0241	-.00353	-.00241	-.01367	-.00248
Stddev	13.608	.00882	1.6960	.00113	.00314	.14902	.00005
%RSD	65.719	4.8335	24.146	31.923	129.89	1089.8	2.0806

#1	32.699	-.17466	8.3175	-.00257	-.00187	-.07651	-.00249
#2	23.504	-.18086	5.1039	-.00477	.00041	.15647	-.00252
#3	5.9173	-.19207	7.6510	-.00326	-.00579	-.12098	-.00242

Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.01000	.01000	.01000				
Low Limit	-.01000	-.01000	-.01000				

Elem	Sr4077	Ti3372	Ti1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00028	.00055	-.00067	-.00024	-.00168	.00614
Stddev	.00006	.00037	.00075	.00008	.00003	.00083
%RSD	20.778	67.064	113.13	34.115	1.7155	13.527

#1	-.00023	.00050	-.00097	-.00023	-.00169	.00527
#2	-.00034	.00094	-.00122	-.00032	-.00171	.00622
#3	-.00026	.00021	.00019	-.00016	-.00165	.00692

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	26481.	38538.
Stddev	287.	288.
%RSD	1.0848	.74729

#1	26293.	38285.
#2	26337.	38851.
#3	26811.	38476.



Approved: October 21, 2011
<i>Emin D. Long</i>

2.2 General Chemistry Data

2.2.1 Percent Solids Data

2.2.1.1 Raw Data

LABORATORY REPORT

L11100534

11/01/11 13:40

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta , OH 45750
(740) 373 - 4071

For

Account Name: CH2MHILL, Inc
CH2MHILL
1034 S. Brentwood Blvd, Suite 2300
Richmond Heights, MO 63117
Attention: Shane Lowe

Project Number: 2736.103
Project: DOW WATERLOO Soil & GW
Site: WATERLOO

P.O. Number: 416903-1

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
DE-34A-10142011	L11100534-01	D2216-90	1	15-OCT-11
DE-34B-10142011	L11100534-02	D2216-90	1	15-OCT-11
DE-34C-10142011	L11100534-03	D2216-90	1	15-OCT-11
DE-34D-10142011	L11100534-04	D2216-90	1	15-OCT-11
DE-34E-10142011	L11100534-05	D2216-90	1	15-OCT-11
DE-34F-10142011	L11100534-06	D2216-90	1	15-OCT-11
DE-34G-10142011	L11100534-07	D2216-90	1	15-OCT-11
DUP-SOIL-10142011	L11100534-08	D2216-90	1	15-OCT-11



Report Number: L11100534

Report Date : November 1, 2011

Sample Number: L11100534-01	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-34A-10142011	Prep Method: D2216-90	Prep Date: 10/31/2011 08:54
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG380549	Analyst: JDH	Run Date: 10/31/2011 08:54
Collect Date: 10/14/2011 10:00	Dilution: 1	File ID: B1.380549-0133
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	77.9		1.00	1.00



Report Number: L11100534

Report Date : November 1, 2011

Sample Number: L11100534-02	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-34E-10142011	Prep Method: D2216-90	Prep Date: 10/31/2011 08:54
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG380549	Analyst: JDH	Run Date: 10/31/2011 08:54
Collect Date: 10/14/2011 10:02	Dilution: 1	File ID: B1.380549-0134
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	79.6		1.00	1.00



Report Number: L11100534

Report Date : November 1, 2011

Sample Number: L11100534-03	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-34C-10142011	Prep Method: D2216-90	Prep Date: 10/31/2011 08:54
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG380549	Analyst: JDH	Run Date: 10/31/2011 08:54
Collect Date: 10/14/2011 10:04	Dilution: 1	File ID: B1.380549-0135
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	85.2		1.00	1.00



Report Number: L11100534

Report Date : November 1, 2011

Sample Number: L11100534-04	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-34D-10142011	Prep Method: D2216-90	Prep Date: 10/31/2011 08:54
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG380549	Analyst: JDH	Run Date: 10/31/2011 08:54
Collect Date: 10/14/2011 10:06	Dilution: 1	File ID: B1.380549-0136
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	84.7		1.00	1.00



Report Number: L11100534

Report Date : November 1, 2011

Sample Number: L11100534-05	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-34E-10142011	Prep Method: D2216-90	Prep Date: 10/31/2011 08:54
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG380549	Analyst: JDH	Run Date: 10/31/2011 08:54
Collect Date: 10/14/2011 10:08	Dilution: 1	File ID: B1.380549-0137
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	85.5		1.00	1.00



Report Number: L11100534

Report Date : November 1, 2011

Sample Number: L11100534-06	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-34F-10142011	Prep Method: D2216-90	Prep Date: 10/31/2011 08:54
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG380549	Analyst: JDH	Run Date: 10/31/2011 08:54
Collect Date: 10/14/2011 10:10	Dilution: 1	File ID: B1.380549-0138
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	82.7		1.00	1.00



Report Number: L11100534

Report Date : November 1, 2011

Sample Number: L11100534-07	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-34G-10142011	Prep Method: D2216-90	Prep Date: 10/31/2011 08:54
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG380549	Analyst: JDH	Run Date: 10/31/2011 08:54
Collect Date: 10/14/2011 10:12	Dilution: 1	File ID: B1.380549-0139
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	79.7		1.00	1.00



Report Number: L11100534

Report Date : November 1, 2011

Sample Number: L11100534-08	PrePrep Method: NONE	Instrument: BAL001
Client ID: DUP-SOIL-10142011	Prep Method: D2216-90	Prep Date: 10/31/2011 08:54
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG380549	Analyst: JDH	Run Date: 10/31/2011 08:54
Collect Date: 10/14/2011 00:01	Dilution: 1	File ID: B1.380549-0140
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	82.5		1.00	1.00



Example Percent Solids Calculations

1.0 Calculating the percent solids of a sample.

$$\%Solids = \frac{WT3 - WT1}{WT2 - WT1} \times F$$

Where:

WT1 = Weight, in grams, of the empty container 1.30 g

WT2 = Weight, in grams, of the container and wet sample 21.274 g

WT3 = Weight, in grams, of the container and dried sample 5.21 g

F = Factor to get units as percent weight 100

%Solids = Percent solids present in sample. 19.58%

2.0 Calculating the percent moisture of a sample.

$$\% \text{ Moisture} = 100 - \% \text{ Solids from 1.0 calculation}$$

PERCENT SOLIDS

Workgroup (AAB#): WG380549
 Method: D2216-90
 SOP: K0003 Rev: 11

Analyst: JDH
 Instrument: BAL001

ADT(on): 10/28/2011 15:48
 ADT(off): 10/31/2011 08:54

SAMPLE NUMBER	EMPTY PAN WT 1	WET WT 2	DRY WT 3A	DRY WT 3B	DRY WT 3C	PERCENT SOLID	PERCENT MOISTURE
L11100534-01	1.29	21.56	17.09			77.95	
L11100534-02	1.29	21.58	17.45			79.65	
L11100534-03	1.3	25.95	22.31			85.23	
L11100534-04	1.29	17	14.59			84.66	
L11100534-05	1.28	30.12	25.93			85.47	
L11100534-06	1.29	21.21	17.77			82.73	
L11100534-07	1.29	20.62	16.69			79.67	
L11100534-08	1.3	24.38	20.33			82.45	
L11100744-01	1.29	13.51	1.45			1.309	
L11100810-05	1.29	19.53	17.98			91.50	
L11100810-06	1.3	38.52	33.41			86.27	
L11100810-07	1.31	21.58	19.23			88.41	
L11100810-08	1.3	43.35	37.42			85.90	
L11100810-09	1.29	29.03	27.84			95.71	
L11100810-10	1.31	30.23	26.94			88.62	
L11100810-11	1.3	41.54	40.11			96.45	
L11100810-12	1.28	36.41	34.86			95.59	
L11100834-01	1.28	16.48	10.62			61.45	
L11100834-02	1.3	32.53	22.54			68.01	
L11100834-03	1.29	23.84	15.16			61.51	
L11100834-04	1.3	29.24	14.44			47.03	
L11100834-05	1.3	15.47	9.09			54.98	
L11100834-06	1.3	24.72	13.84			53.54	
L11100834-07	1.29	24.89	15.47			60.08	
L11100834-08	1.3	24.95	16.31			63.47	
L11100863-01	1.29	18.7	16.11			85.12	
L11100900-07	1.3	23.38	20.31			86.10	
L11100900-09	1.3	22.88	19.7			85.26	
L11100901-01	1.29	21.71	18.91			86.29	
L11100901-02	1.29	22.12	19.52			87.52	
L11100901-03	1.29	22.28	19.49			86.71	
L11100941-01	1.29	23.96	18.6			76.36	
L11100941-02	1.31	35.28	26.6			74.45	
L11100941-03	1.31	46.78	43.07			91.84	
L11100941-04	1.31	24.72	19.89			79.37	
L11100941-05	1.3	28.89	20.05			67.96	
L11100941-06	1.3	30.12	26.36			86.95	
L11100941-07	1.28	29.67	23.61			78.65	
L11100941-08	1.3	29.23	26.21			89.19	
L11100941-09	1.3	32.44	29.06			89.15	
L11100941-10	1.32	34.64	31.23			89.77	
WG380549-01	1.29	21.71	18.91			86.29	13.71

PERCENT SOLIDS - Modified 04/24/2008
 PDF ID: 2200310
 Report generated: 10/31/2011 08:55



PERCENT SOLIDS

Workgroup (AAB#): WG380549
 Method: D2216-90
 SOP: K0003 Rev: 11

Analyst: JDH
 Instrument: BAL001

ADT(on): 10/28/2011 15:48
 ADT(off): 10/31/2011 08:54

SAMPLE NUMBER	EMPTY PAN WT 1	WET WT 2	DRY WT 3A	DRY WT 3B	DRY WT 3C	PERCENT SOLID	PERCENT MOISTURE
WG380549-02	1.29	13.51	1.45			1.309	98.69
WG380549-03	1.31	26.41	22.57			84.70	15.30
WG380549-04	1.28	11.71	1.44			1.534	98.47

Analyst: Justin Hudson



3.0 Attachments

Microbac Laboratories Inc.
Analyst Listing
November 1, 2011

ADC - ANTHONY D. CANTER	AJF - AMANDA J. FICKIESEN	ALB - ANNIE L. BROWN
ALV - AMY L. VALENTINE	AML - TONY M. LONG	AZH - AFTER HOURS
BLG - BRENDA L. GREENWALT	BRG - BRENDA R. GREGORY	CAA - CASSIE A. AUGENSTEIN
CAF - CHERYL A. FLOWERS	CEB - CHAD E. BARNES	CLC - CHRYS L. CRAWFORD
CLS - CARA L. STRICKLER	CLW - CHARISSA L. WINTERS	CPD - CHAD P. DAVIS
CS - CODY M. STRAHLER	CSH - CHRIS S. HILL	DDE - DEBRA D. ELLIOTT
DEV - DAVID E. VANDENBERG	DGB - DOUGLAS G. BUTCHER	DHG - DEBORAH H. GRIFFITHS
DIH - DEANNA I. HESSON	DLB - DAVID L. BUMGARNER	DLP - DOROTHY L. PAYNE
DLR - DIANNA L. RAUCH	DSM - DAVID S. MOSSOR	ECL - ERIC C. LAWSON
EDL - ERIN D. LONG	ERP - ERIN R. PORTER	FJB - FRANCES J. BOLDEN
HAV - HEMA VILASAGAR	HJR - HOLLY J. REED	JAL - JOHN A. LENT
JBK - JEREMY B. KINNEY	JDH - JUSTIN D. HESSON	JKT - JANE K. THOMPSON
JLL - JOHN L. LENT	JWR - JOHN W. RICHARDS	JWS - JACK W. SHEAVES
JYH - JI Y. HU	KEB - KATIE E. BARNES	KHR - KIM H. RHODES
KRA - KATHY R. ALBERTSON	LKN - LINDA K. NEDEFF	LSB - LESLIE S. BUCINA
MDA - MIKE D. ALBERTSON	MDC - MIKE D. COCHRAN	MES - MARY E. SCHILLING
MMB - MAREN M. BEERY	MRT - MICHELLE R. TAYLOR	MSW - MATT S. WILSON
PDM - PIERCE D. MORRIS	PWD - PAUL W. DENT	RAH - ROY A. HALSTEAD
REK - BOB E. KYER	RLB - BOB BUCHANAN	RLK - ROBIN L. KLINGER
RWC - RODNEY W. CAMPBELL	SJP - SUZANNE J. PAUGH	SLM - STEPHANIE L. MOSSBURG
SLP - SHERI L. PFALZGRAF	TIP - TAE I. PARRISH	TMB - TIFFANY M. BAILEY
TMM - TAMMY M. MORRIS	VC - VICKI COLLIER	WJB - WILL J. BEASLEY
WTD - WADE T. DELONG		

November 01, 2011

Qualkey: WATERLOO

Qualifier	Description
*	Surrogate or spike compound out of range
+	Correlation coefficient for the MSA is less than 0.995
<	Result is less than the associated numerical value.
>	Result is greater than the associated numerical value.
A	See the report narrative
B	Analyte present in method blank
B1	Target analyte detected in method blank at or above the method reporting limit
B3	Target analyte detected in calibration blank at or above the method reporting limit
B4	The BOD unseeded dilution water blank exceeded 0.2 mg/L
C	Confirmed by GC/MS
CG	Confluent growth
DL	Surrogate or spike compound was diluted out
E	Estimated concentration due to interference.
E	Semiquantitative result (out of calibration range)
EDL	Elevated sample reporting limits, presence of non-target analytes
EMPC	Estimated Maximum Possible Concentration
F, S	Estimated result below quantitation limit; method of standard additions(MSA)
FL	Free Liquid
H1	Sample analysis performed past holding time.
I	Semiquantitative result (out of instrument calibration range)
J	Estimated concentration.
J	The analyte was positively identified, but the quantitation was below the RL.
J,B	Analyte detected in both the method blank and sample above the MDL.
J,P	Estimate; columns don't agree to within 40%
J,S	Estimated concentration; analyzed by method of standard addition (MSA)
L	Sample reporting limits elevated due to matrix interference
L1	The associated blank spike (LCS) recovery was above the laboratory acceptance limits.
L2	The associated blank spike (LCS) recovery was below the laboratory acceptance limits.
M	Matrix effect; the concentration is an estimate due to matrix effect.
N	Tentatively identified compound(TIC)
NA	Not applicable
ND	Not detected at or above the reporting limit (RL).
ND, L	Not detected; sample reporting limit (RL) elevated due to interference
ND, S	Not detected; analyzed by method of standard addition (MSA)
NF	Not found by library search
NFL	No free liquid
NI	Non-ignitable
NR	Analyte is not required to be analyzed
NS	Not spiked
P	Concentrations >40% difference between the two GC columns
Q	One or more quality control criteria failed. See narrative.
QNS	Quantity of sample not sufficient to perform analysis
RA	Reanalysis confirms reported results
RE	Reanalysis confirms sample matrix interference
S	Analyzed by method of standard addition (MSA)
SMI	Sample matrix interference on surrogate
SP	Reported results are for spike compounds only
TIC	Library Search Compound
TNTC	Too numerous to count
U	Not detected at or above adjusted sample detection limit.
UJ	Undetected; the MDL and RL are estimated due to quality control discrepancies.
UJ	Undetected; the analyte was analyzed for, but not detected.
UQ	Undetected; the analyte was analyzed for, but not detected.
W	Post-digestion spike for furnace AA out of control limits
X	Exceeds regulatory limit
X, S	Exceeds regulatory limit; method of standard additions (MSA)
Z	Cannot be resolved from isomer - see below

***Special Notes for Organic Analytes



1. Acrolein and acrylonitrile by method 624 are semi-quantitative screens only.
2. 1,2-Diphenylhydrazine is unstable and is reported as azobenzene.
3. N-nitrosodiphenylamine cannot be separated from diphenylamine.
4. 3-Methylphenol and 4-Methylphenol are unresolvable compounds.
5. m-Xylene and p-Xylene are unresolvable compounds.
6. The reporting limits for Appendix II/IX compounds by method 8270 are based on EPA estimated PQLs referenced in 40 CFR Part 264, Appendix IX. They are not always achievable for every compound and are matrix dependent.





COC No. A 26193
158 Starlite Drive
Marietta, OH 45750



Phone: 740-373-4071
Fax: 740-373-4835

CHAIN-OF-CUSTODY RECORD

Company Name: CHAM 1571		Contact Phone #: 973.316.9300							
Project Contact: Bill Moore		Location: Waterloo, NY							
Turn Around Requirements: Standard		Project ID: 416903.03.02							
Sampler (print): James Balas		Signature: 							
Sample I.D. No.	Comp	Grab	Date	Time	Matrix*	Hold	NUMBER OF CONTAINERS	Program	ADDITIONAL REQUIREMENTS
DE-34A-10142011	X		10/14/11	1000	S		1	<input type="checkbox"/> CWA <input type="checkbox"/> RCRA <input type="checkbox"/> DOD <input type="checkbox"/> AFCEE <input type="checkbox"/> Other	
DE-34B-10142011	X			1002		X	1		
DE-34C-10142011	X			1004		X	1		
DE-34D-10142011	X			1006		X	1		
DE-34E-10142011	X			1008		X	1		
DE-34F-10142011	X			1010		X	1		
DE-34G-10142011	X			1012		X	1		
DUP-SOIL-10142011	X					X	1		
TOTAL # (LAB USE)									

As + Cd (6010B)

Microbac OVD
Received: 10/15/2011 10:00
By: CARA STRICKLER
id by: 221000019265 (ire)



Cara Strickler

Relinquished by: Date: 10/14/11 Time: 1500 Received by: (Signature) Fed Ex
Relinquished by: Date: Date Time: Received for Laboratory by: (Signature)

*Water (W), Soil (S), Solid Waste (SD), Unknown (X)

Internal Chain of Custody Report

Login: L11100534

Account: 2736

Project: 2736.103

Samples: 8

Due Date: 31-OCT-2011

Samplenum Container ID Products
L11100534-01 896955 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	18-OCT-2011 11:23	CLS	
2	PREP	W1	DIG	18-OCT-2011 12:41	BRG	RLK
3	ANALYZ*	DIG	METALS	20-OCT-2011 08:15	EDL	BRG
4	ANALYZ	W1	WET	28-OCT-2011 13:42	JDH	RLK
5	STORE	WET	A2	31-OCT-2011 10:18	RLK	JDH

**Sample extract/digestate/leachate*

Samplenum Container ID Products
L11100534-02 896956 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	18-OCT-2011 11:23	CLS	
2	PREP	W1	DIG	18-OCT-2011 12:41	BRG	RLK
3	ANALYZ*	DIG	METALS	20-OCT-2011 08:15	EDL	BRG
4	ANALYZ	W1	WET	28-OCT-2011 13:42	JDH	RLK
5	STORE	WET	A2	31-OCT-2011 10:18	RLK	JDH

**Sample extract/digestate/leachate*

Samplenum Container ID Products
L11100534-03 896957 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	18-OCT-2011 11:23	CLS	
2	PREP	W1	DIG	18-OCT-2011 12:41	BRG	RLK
3	ANALYZ*	DIG	METALS	20-OCT-2011 08:15	EDL	BRG
4	ANALYZ	W1	WET	28-OCT-2011 13:42	JDH	RLK
5	STORE	WET	A2	31-OCT-2011 10:18	RLK	JDH

**Sample extract/digestate/leachate*

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login



Internal Chain of Custody Report

Login: L11100534

Account: 2736

Project: 2736.103

Samples: 8

Due Date: 31-OCT-2011

Samplenum Container ID Products
L11100534-04 896958 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	18-OCT-2011 11:23	CLS	
2	PREP	W1	DIG	18-OCT-2011 12:41	BRG	RLK
3	ANALYZ*	DIG	METALS	20-OCT-2011 08:15	EDL	BRG
4	ANALYZ	W1	WET	28-OCT-2011 13:42	JDH	RLK
5	STORE	WET	A2	31-OCT-2011 10:18	RLK	JDH

**Sample extract/digestate/leachate*

Samplenum Container ID Products
L11100534-05 896959 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	18-OCT-2011 11:23	CLS	
2	PREP	W1	DIG	18-OCT-2011 12:41	BRG	RLK
3	ANALYZ*	DIG	METALS	20-OCT-2011 08:15	EDL	BRG
4	ANALYZ	W1	WET	28-OCT-2011 13:42	JDH	RLK
5	STORE	WET	A2	31-OCT-2011 10:18	RLK	JDH

**Sample extract/digestate/leachate*

Samplenum Container ID Products
L11100534-06 896960 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	18-OCT-2011 11:23	CLS	
2	PREP	W1	DIG	18-OCT-2011 12:41	BRG	RLK
3	ANALYZ*	DIG	METALS	20-OCT-2011 08:15	EDL	BRG
4	ANALYZ	W1	WET	28-OCT-2011 13:42	JDH	RLK
5	STORE	WET	A2	31-OCT-2011 10:18	RLK	JDH

**Sample extract/digestate/leachate*

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login



Microbac Laboratories Inc.
Internal Chain of Custody Report

Login: L11100534
Account: 2736
Project: 2736.103
Samples: 8
Due Date: 31-OCT-2011

Samplenum **Container ID** **Products**
L11100534-07 896961 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	18-OCT-2011 11:23	CLS	
2	PREP	W1	DIG	18-OCT-2011 12:41	BRG	RLK
3	ANALYZ*	DIG	METALS	20-OCT-2011 08:15	EDL	BRG
4	ANALYZ	W1	WET	28-OCT-2011 13:42	JDH	RLK
5	STORE	WET	A2	31-OCT-2011 10:18	RLK	JDH

**Sample extract/digestate/leachate*

Samplenum **Container ID** **Products**
L11100534-08 896962 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	18-OCT-2011 11:23	CLS	
2	PREP	W1	DIG	18-OCT-2011 12:41	BRG	RLK
3	ANALYZ*	DIG	METALS	20-OCT-2011 08:15	EDL	BRG
4	ANALYZ	W1	WET	28-OCT-2011 13:42	JDH	RLK
5	STORE	WET	A2	31-OCT-2011 10:18	RLK	JDH

**Sample extract/digestate/leachate*

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login



NELAP Addendum - March 4, 2011

Non-NELAP LIMS Product and Description

The following is a list of those tests that are not included in the Microbac – OVL NELAP Scope of Accreditation:

Heat of Combustion (BTU)
Total Halide by Bomb Combustion (TX)
Particle Sizing - 200 Mesh (PS200)
Sulfate (SO₄) - 9038
Specific Gravity/Density (SPGRAV)
Total Residual Chlorine (CL-TRL)
Total Volatile Solids (all forms) (TVS)
Total Coliform Bacteria (all methods)
Fecal Coliform Bacteria (all methods)
Sulfite (SO₃)
Thiodiglycol (TDG-LCMS)

NELAP Accreditation by Laboratory SOP

NONPOTABLE WATER

OVL HPLC02/HPLC-UV

Nitroglycerin
Nitroguanidine
Acetic acid
Butyric acid
Lactic acid
Propionic acid
Pyruvic acid

OVL KNITRO-C-WUV-VIS

Nitrocellulose

OVL MSS01/GC-MS

1,4-Phenylenediamine
1-Methylnaphthalene
1,4-Dioxane
Atrazine
Benzaldehyde
Biphenyl
Caprolactam
Hexamethylphosphoramide (HMPA)
Pentachlorobenzene
Pentachloroethane

NELAP Accreditation by Laboratory SOP

NONPOTABLE WATER

OVL MSV01/GC-MS

1, 1, 2-Trichloro-1,2,2-trifluoroethane
1,3-Butadiene
Cyclohexane
Cyclohexanone
Dimethyl disulfide
Dimethylsulfide
Ethyl-t-butylether (ETBE)
Isoprene
Methylacetate
Methylcyclohexane
T-amylmethylether (TAME)
Tetrahydrofuran (THF)

OVL RSK01/GC-FID

Isobutane
n-Butane
Propane
Propylene
Propyne

OVL HPLC07/HPLC-MS-MS

Hexamethylphosphoramide (XMPA-LCMS)

SOLID AND HAZARDOUS CHEMICALS

OVL HPLCOS-HPLC-UV

Nitroguanidine

OVL KNITRO-C-S/UV-VIS

Nitrocellulose

OVL MSS01/GC-MS

1-Methylnaphthalene
Benzaldehyde
Biphenyl
Caprolactam
Pentachloroethane

NELAP Accreditation by Laboratory SOP

SOLID AND HAZARDOUS CHEMICALS

OVL MSV01/GC-MS

1.3-Butadiene
Cyclohexane
Cyclohexanone
Dimethyl disulfide
Dimethylsulfide
Ethyl-t-butylether (ETBE)
Isoprene
Methylacetate
Methylcyclohexane
n-Hexane
T-amylmethylether (TAME)



Laboratory Report Number: L11100434

Shane Lowe
CH2MHILL, Inc
CH2MHILL
Richmond Heights, MO 63117

Please find enclosed the analytical results for the samples you submitted to Microbac Laboratories. Review and compilation of your report was completed by Microbac's Ohio Valley Division (OVD). If you have any questions, comments, or require further assistance regarding this report, please contact your service representative listed below.

This report was reviewed on November 08 2011

Kathy Albertson – Team Chemist/Data Specialist
(740) 373-4071
Kathy.Albertson@microbac.com

I certify that all test results meet all of the requirements of the accrediting authority listed below. All results for soil samples are reported on a 'dry-weight' basis unless specified otherwise. Analytical results for water and wastes are reported on a 'as received' basis unless specified otherwise. A statement of uncertainty for each analysis is available upon request. This laboratory report shall not be reproduced, except in full, without the written approval of Microbac Laboratories. The reported results are related only to the samples analyzed as received.

This report was certified on November 08 2011

David Vandenberg – Managing Director

State of Origin: NY
Accrediting Authority: Department of Health ID:10861
QAPP: WATERLOO



Record of Sample Receipt and Inspection

Comments/Discrepancies

This is record of the shipment conditions and the inspection records for the samples received and reported as a sample delivery group (SDG). All of the samples were inspected and observed to conform to our receipt policies, except as noted below.

The following discrepancies were noted:

Discrepancy	Resolution
The sample ID on the Chain of Custody for ID is DE-33G-10102011; the ID on the label is DE-33F-10102011. Labeled per the Chain of Custody. (collect date and collect time are the same)	
The sample ID on the Chain of Custody for ID is DE-27E-10112011, DE-27F-10112011, DE-27-10112011; the ID on the label is DE-29E-10102011, DE-29F-10112011, DE-29G-10112011. Labeled per the Chain of Custody. (collect date and collect time are the same)	

Coolers

Cooler #	Temperature Gun	Temperature	COC #	Airbill #
0011339	G	2.0		34575088110000018682373221622157
0016688	G	3.0		1002239511810004575000868237322151

Inspection Checklist

#	Question	Result
1	Were shipping coolers sealed?	Yes
2	Were custody seals intact?	Yes
3	Were cooler temperatures in range of 0-6?	Yes
4	Was ice present?	Yes
5	Were COC's received/information complete/signed and dated?	Yes
6	Were sample containers intact and match COC?	Yes
7	Were sample labels intact and match COC?	No
8	Were the correct containers and volumes received?	Yes
9	Were samples received within EPA hold times?	Yes
10	Were correct preservatives used? (water only)	Yes
11	Were pH ranges acceptable? (voa's excluded)	Yes
12	Were VOA samples free of headspace (less than 6mm)?	NA

Samples Received

Client ID	Laboratory ID	Date Collected	Date Received
DE-30A-10102011	L11100434-01	10/10/2011 13:15	10/13/2011 10:19
DE-30B-10102011	L11100434-02	10/10/2011 13:17	10/13/2011 10:19
DE-30C-10102011	L11100434-03	10/10/2011 13:19	10/13/2011 10:19
DE-30D-10102011	L11100434-04	10/10/2011 13:22	10/13/2011 10:19
DE-30E-10102011	L11100434-05	10/10/2011 13:25	10/13/2011 10:19
DE-30F-10102011	L11100434-06	10/10/2011 13:27	10/13/2011 10:19
DE-30G-10102011	L11100434-07	10/10/2011 13:35	10/13/2011 10:19
DE-31A-10102011	L11100434-08	10/10/2011 13:57	10/13/2011 10:19
DE-31B-10102011	L11100434-09	10/10/2011 13:59	10/13/2011 10:19
DE-31C-10102011	L11100434-10	10/10/2011 14:01	10/13/2011 10:19
DE-31D-10102011	L11100434-11	10/10/2011 14:03	10/13/2011 10:19
DE-31E-10102011	L11100434-12	10/10/2011 14:05	10/13/2011 10:19
DE-31F-10102011	L11100434-13	10/10/2011 14:07	10/13/2011 10:19
DE-31G-10102011	L11100434-14	10/10/2011 14:20	10/13/2011 10:19
DE-31G-10102011MS	L11100434-15	10/10/2011 14:20	10/13/2011 10:19
DE-31G-10102011MSD	L11100434-16	10/10/2011 14:20	10/13/2011 10:19
DE-32A-10102011	L11100434-17	10/10/2011 14:34	10/13/2011 10:19
DE-32B-10102011	L11100434-18	10/10/2011 14:36	10/13/2011 10:19
DE-32C-10102011	L11100434-19	10/10/2011 14:38	10/13/2011 10:19
DE-32D-10102011	L11100434-20	10/10/2011 14:41	10/13/2011 10:19
DE-32D-10102011MS	L11100434-21	10/10/2011 14:41	10/13/2011 10:19
DE-32D-10102011MSD	L11100434-22	10/10/2011 14:41	10/13/2011 10:19
DE-32E-10102011	L11100434-23	10/10/2011 14:45	10/13/2011 10:19
DE-33A-10102011	L11100434-24	10/10/2011 15:32	10/13/2011 10:19
DE-33B-10102011	L11100434-25	10/10/2011 15:35	10/13/2011 10:19
DE-33C-10102011	L11100434-26	10/10/2011 15:37	10/13/2011 10:19
DE-33D-10102011	L11100434-27	10/10/2011 15:40	10/13/2011 10:19
DE-33E-10102011	L11100434-28	10/10/2011 15:42	10/13/2011 10:19
DE-33F-10102011	L11100434-29	10/10/2011 15:45	10/13/2011 10:19
DE-33G-10102011	L11100434-30	10/10/2011 15:53	10/13/2011 10:19
DUP-SOIL-10102011-01	L11100434-31	10/10/2011 08:00	10/13/2011 10:19
DUP-SOIL-10102011-02	L11100434-32	10/10/2011 08:05	10/13/2011 10:19
DE-29A-10112011	L11100434-33	10/11/2011 08:38	10/13/2011 10:19
DE-29B-10112011	L11100434-34	10/11/2011 08:40	10/13/2011 10:19
DE-29C-10112011	L11100434-35	10/11/2011 08:42	10/13/2011 10:19
DE-29D-10112011	L11100434-36	10/11/2011 08:45	10/13/2011 10:19
DE-29E-10112011	L11100434-37	10/11/2011 08:47	10/13/2011 10:19

DE-29E-10112011MS	L11100434-38	10/11/2011 08:47	10/13/2011 10:19
DE-29E-10112011MSD	L11100434-39	10/11/2011 08:47	10/13/2011 10:19
DE-29F-10112011	L11100434-40	10/11/2011 08:50	10/13/2011 10:19
DE-29G-10112011	L11100434-41	10/11/2011 08:52	10/13/2011 10:19
DE-28A-10112011	L11100434-42	10/11/2011 09:16	10/13/2011 10:19
DE-28B-10112011	L11100434-43	10/11/2011 09:18	10/13/2011 10:19
DE-28C-10112011	L11100434-44	10/11/2011 09:20	10/13/2011 10:19
DE-28D-10112011	L11100434-45	10/11/2011 09:23	10/13/2011 10:19
DE-28E-10112011	L11100434-46	10/11/2011 09:25	10/13/2011 10:19
DE-28F-10112011	L11100434-47	10/11/2011 09:28	10/13/2011 10:19
DE-28G-10112011	L11100434-48	10/11/2011 09:33	10/13/2011 10:19
DE-27A-10112011	L11100434-49	10/11/2011 09:52	10/13/2011 10:19
DE-27B-10112011	L11100434-50	10/11/2011 09:54	10/13/2011 10:19
DE-27C-10112011	L11100434-51	10/11/2011 09:56	10/13/2011 10:19
DE-27D-10112011	L11100434-52	10/11/2011 09:59	10/13/2011 10:19
DE-27E-10112011	L11100434-53	10/11/2011 10:01	10/13/2011 10:19
DE-27F-10112011	L11100434-54	10/11/2011 10:03	10/13/2011 10:19
DE-27G-10112011	L11100434-55	10/11/2011 10:08	10/13/2011 10:19
DUP-SOIL-10112011-01	L11100434-56	10/11/2011 08:00	10/13/2011 10:19
DUP-SOIL-10112011-02	L11100434-57	10/11/2011 08:05	10/13/2011 10:19
EB-SOIL-10112011	L11100434-58	10/11/2011 17:30	10/13/2011 10:19



Login Number: L11100434

Department: Metals

Analyst: Erin Long

Analyst #2: Pierce Morris

METHOD

Preparation: SW-846 3051

Analysis: SW-846 6010

HOLDING TIMES

Sample Preparation: All holding times were met.

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial Calibration: All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Interference Check Standards: All acceptance criteria were met.

Continuing Calibration Verification: WG379981 - Due to continuing calibration verification failure for arsenic on 25-OCT-2011 at 03:38, client samples 29 through 36 and 40 through 48 were reanalyzed on a later calibration for arsenic.

Continuing Calibration Blank: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Serial Dilution/Post Digestion Spikes: WG379202 - All acceptance criteria were met.

WG379620 - All acceptance criteria were met.

WG379347 - All acceptance criteria were met.

WG379981 - All acceptance criteria were met.

Matrix Spikes: WG379202 - Sample 14 was chosen by the client for MS/MSD analysis. Samples 15(MS) and 16(MSD) yielded noncompliant recoveries and a noncompliant RPD for cadmium.

WG379347 - Sample 37 was chosen by the client for MS/MSD analysis. Samples 38(MS) and 39(MSD) yielded a noncompliant recovery for arsenic.

WG379981 - Sample 20 was chosen by the client for MS/MSD analysis. Samples 21(MS) and 22(MSD) yielded noncompliant recoveries for arsenic and cadmium.

SAMPLES

Samples: All acceptance criteria were met.

Narrative ID: 36603

Approved By: Sheri Pfalzgraf

Shari L. Pappas



Login Number: L11100434
Department: Metals
Analyst: Ji Hu

METHOD

Preparation: SW-846 3015

Analysis: SW-846 6020

HOLDING TIMES

Sample Preparation: All holding times were met.

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial Calibration: All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Interference Check Standards: All acceptance criteria were met.

Continuing Calibration: All acceptance criteria were met.

Continuing Calibration Blank: All acceptance criteria were met.

Low Level Check: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Serial Dilution/Post Digestion Spikes: WG380105 - All acceptance criteria were met.

Matrix Spikes: All acceptance criteria were met.

SAMPLES

Samples: All acceptance criteria were met.

Narrative ID: 37177

Approved By: Sheri Pfalzgraf

A handwritten signature in black ink that reads "Sheri L. Pfalzgraf".

The following report lists the analytes that were manually integrated.

Reason Code Descriptions

Code	Description
1	Data system fails to select the correct peak
2	Data system splits the peak incorrectly or integrates a false peak as a rider peak
3	Improperly integrated isomers and/or coeluting compounds
4	System established incorrect baseline
5	Miscellaneous

Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-01 PrePrep Method: NONE Instrument: ICP-THERMO2
 Client ID: DE-30A-10102011 Prep Method: 3051A Prep Date: 10/17/2011 07:25
 Matrix: Soil Analytical Method: 6010B Cal Date: 10/17/2011 09:49
 Workgroup Number: WG379202 Analyst: EDL Run Date: 10/17/2011 12:40
 Collect Date: 10/10/2011 13:15 Dilution: 1 File ID: T2.101711.124022
 Sample Tag: 01 Units: mg/kg Percent Solid: 74.1

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	92.9		5.11	2.56
Cadmium, Total	7440-43-9	5.02		0.511	0.256

Sample Number: L11100434-01 PrePrep Method: NONE Instrument: BAL001
 Client ID: DE-30A-10102011 Prep Method: D2216-90 Prep Date: 10/26/2011 08:59
 Matrix: Soil Analytical Method: D2216-90 Cal Date: _____
 Workgroup Number: WG380136 Analyst: JDH Run Date: 10/26/2011 08:59
 Collect Date: 10/10/2011 13:15 Dilution: 1 File ID: B1.380136-0101
 Sample Tag: 01 Units: weight %

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	74.1		1.00	1.00

Sample Number: L11100434-02 PrePrep Method: NONE Instrument: ICP-THERMO2
 Client ID: DE-30B-10102011 Prep Method: 3051A Prep Date: 10/17/2011 07:26
 Matrix: Soil Analytical Method: 6010B Cal Date: 10/17/2011 09:49
 Workgroup Number: WG379202 Analyst: EDL Run Date: 10/17/2011 12:43
 Collect Date: 10/10/2011 13:17 Dilution: 1 File ID: T2.101711.124343
 Sample Tag: 01 Units: mg/kg Percent Solid: 82.7

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	73.8		4.62	2.31
Cadmium, Total	7440-43-9	3.22		0.462	0.231

Sample Number: L11100434-02 PrePrep Method: NONE Instrument: BAL001
 Client ID: DE-30B-10102011 Prep Method: D2216-90 Prep Date: 10/26/2011 08:59
 Matrix: Soil Analytical Method: D2216-90 Cal Date: _____
 Workgroup Number: WG380136 Analyst: JDH Run Date: 10/26/2011 08:59
 Collect Date: 10/10/2011 13:17 Dilution: 1 File ID: B1.380136-0102
 Sample Tag: 01 Units: weight %

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	82.7		1.00	1.00



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-03
 Client ID: DE-30C-10102011
 Matrix: Soil
 Workgroup Number: WG379202
 Collect Date: 10/10/2011 13:19
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: EDL
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 10/17/2011 07:26
 Cal Date: 10/17/2011 09:49
 Run Date: 10/17/2011 12:46
 File ID: T2.101711.124658
 Percent Solid: 87.5

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	99.9		4.19	2.10
Cadmium, Total	7440-43-9	1.63		0.419	0.210

Sample Number: L11100434-03
 Client ID: DE-30C-10102011
 Matrix: Soil
 Workgroup Number: WG380136
 Collect Date: 10/10/2011 13:19
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: D2216-90
 Analytical Method: D2216-90
 Analyst: JDH
 Dilution: 1
 Units: weight %

Instrument: BAL001
 Prep Date: 10/26/2011 08:59
 Cal Date:
 Run Date: 10/26/2011 08:59
 File ID: B1.380136-0103

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	87.5		1.00	1.00

Sample Number: L11100434-04
 Client ID: DE-30D-10102011
 Matrix: Soil
 Workgroup Number: WG379202
 Collect Date: 10/10/2011 13:22
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: EDL
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 10/17/2011 07:27
 Cal Date: 10/17/2011 09:49
 Run Date: 10/17/2011 12:50
 File ID: T2.101711.125006
 Percent Solid: 84.1

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	122		4.46	2.23
Cadmium, Total	7440-43-9	1.10		0.446	0.223

Sample Number: L11100434-04
 Client ID: DE-30D-10102011
 Matrix: Soil
 Workgroup Number: WG380136
 Collect Date: 10/10/2011 13:22
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: D2216-90
 Analytical Method: D2216-90
 Analyst: JDH
 Dilution: 1
 Units: weight %

Instrument: BAL001
 Prep Date: 10/26/2011 08:59
 Cal Date:
 Run Date: 10/26/2011 08:59
 File ID: B1.380136-0104

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	84.1		1.00	1.00



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-05 PrePrep Method: NONE Instrument: ICP-THERMO2
 Client ID: DE-30E-10102011 Prep Method: 3051A Prep Date: 10/17/2011 07:28
 Matrix: Soil Analytical Method: 6010B Cal Date: 10/17/2011 09:49
 Workgroup Number: WG379202 Analyst: EDL Run Date: 10/17/2011 12:53
 Collect Date: 10/10/2011 13:25 Dilution: 1 File ID: T2.101711.125320
 Sample Tag: 01 Units: mg/kg Percent Solid: 89.8

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	38.6		4.04	2.02
Cadmium, Total	7440-43-9	0.361	J	0.404	0.202

J Estimated value; the analyte concentration was less than the RL/LOQ.

Sample Number: L11100434-05 PrePrep Method: NONE Instrument: BAL001
 Client ID: DE-30E-10102011 Prep Method: D2216-90 Prep Date: 10/26/2011 08:59
 Matrix: Soil Analytical Method: D2216-90 Cal Date: _____
 Workgroup Number: WG380136 Analyst: JDH Run Date: 10/26/2011 08:59
 Collect Date: 10/10/2011 13:25 Dilution: 1 File ID: B1.380136-0105
 Sample Tag: 01 Units: weight %

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	89.8		1.00	1.00

Sample Number: L11100434-06 PrePrep Method: NONE Instrument: ICP-THERMO2
 Client ID: DE-30F-10102011 Prep Method: 3051A Prep Date: 10/17/2011 07:28
 Matrix: Soil Analytical Method: 6010B Cal Date: 10/17/2011 09:49
 Workgroup Number: WG379202 Analyst: EDL Run Date: 10/17/2011 13:12
 Collect Date: 10/10/2011 13:27 Dilution: 1 File ID: T2.101711.131254
 Sample Tag: 01 Units: mg/kg Percent Solid: 95.5

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	16.0		3.83	1.92
Cadmium, Total	7440-43-9	0.801		0.383	0.192

Sample Number: L11100434-06 PrePrep Method: NONE Instrument: BAL001
 Client ID: DE-30F-10102011 Prep Method: D2216-90 Prep Date: 10/26/2011 08:59
 Matrix: Soil Analytical Method: D2216-90 Cal Date: _____
 Workgroup Number: WG380136 Analyst: JDH Run Date: 10/26/2011 08:59
 Collect Date: 10/10/2011 13:27 Dilution: 1 File ID: B1.380136-0106
 Sample Tag: 01 Units: weight %

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	95.5		1.00	1.00



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-07 PrePrep Method: NONE Instrument: ICP-THERMO2
 Client ID: DE-30G-10102011 Prep Method: 3051A Prep Date: 10/17/2011 07:29
 Matrix: Soil Analytical Method: 6010B Cal Date: 10/17/2011 09:49
 Workgroup Number: WG379202 Analyst: EDL Run Date: 10/17/2011 13:16
 Collect Date: 10/10/2011 13:35 Dilution: 1 File ID: T2.101711.131616
 Sample Tag: 01 Units: mg/kg Percent Solid: 93.2

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	2.77	J	3.92	1.96
Cadmium, Total	7440-43-9	1.04		0.392	0.196

J Estimated value; the analyte concentration was less than the RL/LOQ.

Sample Number: L11100434-07 PrePrep Method: NONE Instrument: BAL001
 Client ID: DE-30G-10102011 Prep Method: D2216-90 Prep Date: 10/26/2011 08:59
 Matrix: Soil Analytical Method: D2216-90 Cal Date: _____
 Workgroup Number: WG380136 Analyst: JDH Run Date: 10/26/2011 08:59
 Collect Date: 10/10/2011 13:35 Dilution: 1 File ID: B1.380136-0107
 Sample Tag: 01 Units: weight %

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	93.2		1.00	1.00

Sample Number: L11100434-08 PrePrep Method: NONE Instrument: ICP-THERMO2
 Client ID: DE-31A-10102011 Prep Method: 3051A Prep Date: 10/17/2011 07:30
 Matrix: Soil Analytical Method: 6010B Cal Date: 10/17/2011 09:49
 Workgroup Number: WG379202 Analyst: EDL Run Date: 10/17/2011 13:19
 Collect Date: 10/10/2011 13:57 Dilution: 1 File ID: T2.101711.131936
 Sample Tag: 01 Units: mg/kg Percent Solid: 65.1

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	137		5.79	2.89
Cadmium, Total	7440-43-9	6.79		0.579	0.289

Sample Number: L11100434-08 PrePrep Method: NONE Instrument: BAL001
 Client ID: DE-31A-10102011 Prep Method: D2216-90 Prep Date: 10/26/2011 08:59
 Matrix: Soil Analytical Method: D2216-90 Cal Date: _____
 Workgroup Number: WG380136 Analyst: JDH Run Date: 10/26/2011 08:59
 Collect Date: 10/10/2011 13:57 Dilution: 1 File ID: B1.380136-0108
 Sample Tag: 01 Units: weight %

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	65.1		1.00	1.00



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-09
 Client ID: DE-31B-10102011
 Matrix: Soil
 Workgroup Number: WG379202
 Collect Date: 10/10/2011 13:59
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: EDL
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 10/17/2011 07:31
 Cal Date: 10/17/2011 09:49
 Run Date: 10/17/2011 13:23
 File ID: T2.101711.132308
 Percent Solid: 80.7

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	86.4		4.43	2.21
Cadmium, Total	7440-43-9	1.30		0.443	0.221

Sample Number: L11100434-09
 Client ID: DE-31B-10102011
 Matrix: Soil
 Workgroup Number: WG380136
 Collect Date: 10/10/2011 13:59
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: D2216-90
 Analytical Method: D2216-90
 Analyst: JDH
 Dilution: 1
 Units: weight %

Instrument: BAL001
 Prep Date: 10/26/2011 08:59
 Cal Date:
 Run Date: 10/26/2011 08:59
 File ID: B1.380136-0109

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	80.7		1.00	1.00

Sample Number: L11100434-10
 Client ID: DE-31C-10102011
 Matrix: Soil
 Workgroup Number: WG379202
 Collect Date: 10/10/2011 14:01
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: EDL
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 10/17/2011 07:32
 Cal Date: 10/17/2011 09:49
 Run Date: 10/17/2011 13:26
 File ID: T2.101711.132615
 Percent Solid: 91.2

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	31.2		3.68	1.84
Cadmium, Total	7440-43-9	0.443		0.368	0.184

Sample Number: L11100434-10
 Client ID: DE-31C-10102011
 Matrix: Soil
 Workgroup Number: WG380136
 Collect Date: 10/10/2011 14:01
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: D2216-90
 Analytical Method: D2216-90
 Analyst: JDH
 Dilution: 1
 Units: weight %

Instrument: BAL001
 Prep Date: 10/26/2011 08:59
 Cal Date:
 Run Date: 10/26/2011 08:59
 File ID: B1.380136-0110

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	91.2		1.00	1.00



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-11
 Client ID: DE-31D-10102011
 Matrix: Soil
 Workgroup Number: WG379202
 Collect Date: 10/10/2011 14:03
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: EDL
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 10/17/2011 07:32
 Cal Date: 10/17/2011 09:49
 Run Date: 10/17/2011 13:29
 File ID: T2.101711.132932
 Percent Solid: 94.3

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	11.2		3.76	1.88
Cadmium, Total	7440-43-9	0.505		0.376	0.188

Sample Number: L11100434-11
 Client ID: DE-31D-10102011
 Matrix: Soil
 Workgroup Number: WG380136
 Collect Date: 10/10/2011 14:03
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: D2216-90
 Analytical Method: D2216-90
 Analyst: JDH
 Dilution: 1
 Units: weight %

Instrument: BAL001
 Prep Date: 10/26/2011 08:59
 Cal Date:
 Run Date: 10/26/2011 08:59
 File ID: B1.380136-0111

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	94.3		1.00	1.00

Sample Number: L11100434-12
 Client ID: DE-31E-10102011
 Matrix: Soil
 Workgroup Number: WG379202
 Collect Date: 10/10/2011 14:05
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: EDL
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 10/17/2011 07:33
 Cal Date: 10/17/2011 09:49
 Run Date: 10/17/2011 13:32
 File ID: T2.101711.133248
 Percent Solid: 96.9

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	4.52		3.56	1.78
Cadmium, Total	7440-43-9	0.987		0.356	0.178

Sample Number: L11100434-12
 Client ID: DE-31E-10102011
 Matrix: Soil
 Workgroup Number: WG380136
 Collect Date: 10/10/2011 14:05
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: D2216-90
 Analytical Method: D2216-90
 Analyst: JDH
 Dilution: 1
 Units: weight %

Instrument: BAL001
 Prep Date: 10/26/2011 08:59
 Cal Date:
 Run Date: 10/26/2011 08:59
 File ID: B1.380136-0112

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	96.9		1.00	1.00



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-13 PrePrep Method: NONE Instrument: ICP-THERMO2
 Client ID: DE-31F-10102011 Prep Method: 3051A Prep Date: 10/17/2011 07:34
 Matrix: Soil Analytical Method: 6010B Cal Date: 10/17/2011 09:49
 Workgroup Number: WG379202 Analyst: EDL Run Date: 10/17/2011 13:36
 Collect Date: 10/10/2011 14:07 Dilution: 1 File ID: T2.101711.133605
 Sample Tag: 01 Units: mg/kg Percent Solid: 97.4

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	1.95	J	3.67	1.84
Cadmium, Total	7440-43-9	0.231	J	0.367	0.184

J Estimated value; the analyte concentration was less than the RL/LOQ.

Sample Number: L11100434-13 PrePrep Method: NONE Instrument: BAL001
 Client ID: DE-31F-10102011 Prep Method: D2216-90 Prep Date: 10/26/2011 08:59
 Matrix: Soil Analytical Method: D2216-90 Cal Date: _____
 Workgroup Number: WG380136 Analyst: JDH Run Date: 10/26/2011 08:59
 Collect Date: 10/10/2011 14:07 Dilution: 1 File ID: B1.380136-0113
 Sample Tag: 01 Units: weight %

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	97.4		1.00	1.00

Sample Number: L11100434-14 PrePrep Method: NONE Instrument: ICP-THERMO2
 Client ID: DE-31G-10102011 Prep Method: 3051A Prep Date: 10/17/2011 07:35
 Matrix: Soil Analytical Method: 6010B Cal Date: 10/17/2011 09:49
 Workgroup Number: WG379202 Analyst: EDL Run Date: 10/17/2011 13:39
 Collect Date: 10/10/2011 14:20 Dilution: 1 File ID: T2.101711.133923
 Sample Tag: 01 Units: mg/kg Percent Solid: 94.8

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	2.51	J	3.93	1.96
Cadmium, Total	7440-43-9	22.8		0.393	0.196

J Estimated value; the analyte concentration was less than the RL/LOQ.

Sample Number: L11100434-14 PrePrep Method: NONE Instrument: BAL001
 Client ID: DE-31G-10102011 Prep Method: D2216-90 Prep Date: 10/26/2011 08:59
 Matrix: Soil Analytical Method: D2216-90 Cal Date: _____
 Workgroup Number: WG380136 Analyst: JDH Run Date: 10/26/2011 08:59
 Collect Date: 10/10/2011 14:20 Dilution: 1 File ID: B1.380136-0114
 Sample Tag: 01 Units: weight %

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	94.8		1.00	1.00

Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-15
 Client ID: DE-31G-10102011MS
 Matrix: Soil
 Workgroup Number: WG379202
 Collect Date: 10/10/2011 14:20
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: EDL
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 10/17/2011 07:20
 Cal Date: 10/17/2011 09:49
 Run Date: 10/17/2011 13:42
 File ID: T2.101711.134239
 Percent Solid: 94.8

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	9.42		3.93	1.96
Cadmium, Total	7440-43-9	9.85		0.393	0.196

Sample Number: L11100434-15
 Client ID: DE-31G-10102011MS
 Matrix: Soil
 Workgroup Number: WG380136
 Collect Date: 10/10/2011 14:20
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: D2216-90
 Analytical Method: D2216-90
 Analyst: JDH
 Dilution: 1
 Units: weight %

Instrument: BAL001
 Prep Date: 10/26/2011 08:59
 Cal Date:
 Run Date: 10/26/2011 08:59
 File ID: B1.380136-0115

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	94.8		1.00	1.00

Sample Number: L11100434-16
 Client ID: DE-31G-10102011MSD
 Matrix: Soil
 Workgroup Number: WG379202
 Collect Date: 10/10/2011 14:20
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: EDL
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 10/17/2011 07:20
 Cal Date: 10/17/2011 09:49
 Run Date: 10/17/2011 13:52
 File ID: T2.101711.135242
 Percent Solid: 94.8

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	9.60		3.93	1.96
Cadmium, Total	7440-43-9	7.47		0.393	0.196

Sample Number: L11100434-16
 Client ID: DE-31G-10102011MSD
 Matrix: Soil
 Workgroup Number: WG380136
 Collect Date: 10/10/2011 14:20
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: D2216-90
 Analytical Method: D2216-90
 Analyst: JDH
 Dilution: 1
 Units: weight %

Instrument: BAL001
 Prep Date: 10/26/2011 08:59
 Cal Date:
 Run Date: 10/26/2011 08:59
 File ID: B1.380136-0116

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	94.8		1.00	1.00



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-17
 Client ID: DE-32A-10102011
 Matrix: Soil
 Workgroup Number: WG379202
 Collect Date: 10/10/2011 14:34
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: EDL
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 10/17/2011 07:38
 Cal Date: 10/17/2011 09:49
 Run Date: 10/17/2011 13:55
 File ID: T2.101711.135556
 Percent Solid: 70.3

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	66.7		5.28	2.64
Cadmium, Total	7440-43-9	8.87		0.528	0.264

Sample Number: L11100434-17
 Client ID: DE-32A-10102011
 Matrix: Soil
 Workgroup Number: WG380136
 Collect Date: 10/10/2011 14:34
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: D2216-90
 Analytical Method: D2216-90
 Analyst: JDH
 Dilution: 1
 Units: weight %

Instrument: BAL001
 Prep Date: 10/26/2011 08:59
 Cal Date:
 Run Date: 10/26/2011 08:59
 File ID: B1.380136-0117

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	70.3		1.00	1.00

Sample Number: L11100434-18
 Client ID: DE-32B-10102011
 Matrix: Soil
 Workgroup Number: WG379202
 Collect Date: 10/10/2011 14:36
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: EDL
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 10/17/2011 07:39
 Cal Date: 10/17/2011 09:49
 Run Date: 10/17/2011 13:59
 File ID: T2.101711.135928
 Percent Solid: 76.5

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	43.8		4.95	2.48
Cadmium, Total	7440-43-9	7.80		0.495	0.248

Sample Number: L11100434-18
 Client ID: DE-32B-10102011
 Matrix: Soil
 Workgroup Number: WG380136
 Collect Date: 10/10/2011 14:36
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: D2216-90
 Analytical Method: D2216-90
 Analyst: JDH
 Dilution: 1
 Units: weight %

Instrument: BAL001
 Prep Date: 10/26/2011 08:59
 Cal Date:
 Run Date: 10/26/2011 08:59
 File ID: B1.380136-0118

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	76.5		1.00	1.00

Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-19
 Client ID: DE-32C-10102011
 Matrix: Soil
 Workgroup Number: WG379620
 Collect Date: 10/10/2011 14:38
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: PDM
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO1
 Prep Date: 10/17/2011 09:59
 Cal Date: 10/26/2011 09:01
 Run Date: 10/27/2011 02:14
 File ID: T1.102711.021433
 Percent Solid: 87.6

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	13.0		4.17	2.08
Cadmium, Total	7440-43-9	1.77		0.417	0.208

Sample Number: L11100434-19
 Client ID: DE-32C-10102011
 Matrix: Soil
 Workgroup Number: WG380136
 Collect Date: 10/10/2011 14:38
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: D2216-90
 Analytical Method: D2216-90
 Analyst: JDH
 Dilution: 1
 Units: weight %

Instrument: BAL001
 Prep Date: 10/26/2011 08:59
 Cal Date:
 Run Date: 10/26/2011 08:59
 File ID: B1.380136-0119

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	87.6		1.00	1.00

Sample Number: L11100434-20
 Client ID: DE-32D-10102011
 Matrix: Soil
 Workgroup Number: WG379981
 Collect Date: 10/10/2011 14:41
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: PDM
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO1
 Prep Date: 10/17/2011 11:18
 Cal Date: 10/24/2011 08:53
 Run Date: 10/25/2011 02:24
 File ID: T1.102511.022442
 Percent Solid: 89.7

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	11.7		3.96	1.98
Cadmium, Total	7440-43-9	1.33		0.396	0.198

Sample Number: L11100434-20
 Client ID: DE-32D-10102011
 Matrix: Soil
 Workgroup Number: WG380136
 Collect Date: 10/10/2011 14:41
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: D2216-90
 Analytical Method: D2216-90
 Analyst: JDH
 Dilution: 1
 Units: weight %

Instrument: BAL001
 Prep Date: 10/26/2011 08:59
 Cal Date:
 Run Date: 10/26/2011 08:59
 File ID: B1.380136-0120

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	89.7		1.00	1.00



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-21
 Client ID: DE-32D-10102011MS
 Matrix: Soil
 Workgroup Number: WG379981
 Collect Date: 10/10/2011 14:41
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: PDM
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO1
 Prep Date: 10/17/2011 11:14
 Cal Date: 10/24/2011 08:53
 Run Date: 10/25/2011 02:28
 File ID: T1.102511.022823
 Percent Solid: 89.7

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	18.1		3.96	1.98
Cadmium, Total	7440-43-9	2.19		0.396	0.198

Sample Number: L11100434-21
 Client ID: DE-32D-10102011MS
 Matrix: Soil
 Workgroup Number: WG380136
 Collect Date: 10/10/2011 14:41
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: D2216-90
 Analytical Method: D2216-90
 Analyst: JDH
 Dilution: 1
 Units: weight %

Instrument: BAL001
 Prep Date: 10/26/2011 08:59
 Cal Date:
 Run Date: 10/26/2011 08:59
 File ID: B1.380136-0121

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	89.7		1.00	1.00

Sample Number: L11100434-22
 Client ID: DE-32D-10102011MSD
 Matrix: Soil
 Workgroup Number: WG379981
 Collect Date: 10/10/2011 14:41
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: PDM
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO1
 Prep Date: 10/17/2011 11:14
 Cal Date: 10/24/2011 08:53
 Run Date: 10/25/2011 02:32
 File ID: T1.102511.023200
 Percent Solid: 89.7

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	17.3		3.96	1.98
Cadmium, Total	7440-43-9	1.98		0.396	0.198

Sample Number: L11100434-22
 Client ID: DE-32D-10102011MSD
 Matrix: Soil
 Workgroup Number: WG380136
 Collect Date: 10/10/2011 14:41
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: D2216-90
 Analytical Method: D2216-90
 Analyst: JDH
 Dilution: 1
 Units: weight %

Instrument: BAL001
 Prep Date: 10/26/2011 08:59
 Cal Date:
 Run Date: 10/26/2011 08:59
 File ID: B1.380136-0122

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	89.7		1.00	1.00



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-23
 Client ID: DE-32E-10102011
 Matrix: Soil
 Workgroup Number: WG379620
 Collect Date: 10/10/2011 14:45
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: PDM
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO1
 Prep Date: 10/17/2011 09:59
 Cal Date: 10/26/2011 09:01
 Run Date: 10/27/2011 02:29
 File ID: T1.102711.022932
 Percent Solid: 93.0

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	6.71		4.05	2.03
Cadmium, Total	7440-43-9	1.17		0.405	0.203

Sample Number: L11100434-23
 Client ID: DE-32E-10102011
 Matrix: Soil
 Workgroup Number: WG380136
 Collect Date: 10/10/2011 14:45
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: D2216-90
 Analytical Method: D2216-90
 Analyst: JDH
 Dilution: 1
 Units: weight %

Instrument: BAL001
 Prep Date: 10/26/2011 08:59
 Cal Date:
 Run Date: 10/26/2011 08:59
 File ID: B1.380136-0123

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	93.0		1.00	1.00

Sample Number: L11100434-24
 Client ID: DE-33A-10102011
 Matrix: Soil
 Workgroup Number: WG379620
 Collect Date: 10/10/2011 15:32
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: PDM
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO1
 Prep Date: 10/17/2011 09:59
 Cal Date: 10/26/2011 09:01
 Run Date: 10/27/2011 02:33
 File ID: T1.102711.023321
 Percent Solid: 65.5

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	19.3		5.60	2.80
Cadmium, Total	7440-43-9	2.52		0.560	0.280

Sample Number: L11100434-24
 Client ID: DE-33A-10102011
 Matrix: Soil
 Workgroup Number: WG380136
 Collect Date: 10/10/2011 15:32
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: D2216-90
 Analytical Method: D2216-90
 Analyst: JDH
 Dilution: 1
 Units: weight %

Instrument: BAL001
 Prep Date: 10/26/2011 08:59
 Cal Date:
 Run Date: 10/26/2011 08:59
 File ID: B1.380136-0124

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	65.5		1.00	1.00



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-25
 Client ID: DE-33B-10102011
 Matrix: Soil
 Workgroup Number: WG379620
 Collect Date: 10/10/2011 15:35
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: PDM
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO1
 Prep Date: 10/17/2011 09:59
 Cal Date: 10/26/2011 09:01
 Run Date: 10/27/2011 02:37
 File ID: T1.102711.023709
 Percent Solid: 86.8

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	43.5		4.43	2.22
Cadmium, Total	7440-43-9	1.71		0.443	0.222

Sample Number: L11100434-25
 Client ID: DE-33B-10102011
 Matrix: Soil
 Workgroup Number: WG380136
 Collect Date: 10/10/2011 15:35
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: D2216-90
 Analytical Method: D2216-90
 Analyst: JDH
 Dilution: 1
 Units: weight %

Instrument: BAL001
 Prep Date: 10/26/2011 08:59
 Cal Date:
 Run Date: 10/26/2011 08:59
 File ID: B1.380136-0125

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	86.8		1.00	1.00

Sample Number: L11100434-26
 Client ID: DE-33C-10102011
 Matrix: Soil
 Workgroup Number: WG379620
 Collect Date: 10/10/2011 15:37
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: PDM
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO1
 Prep Date: 10/17/2011 09:59
 Cal Date: 10/26/2011 09:01
 Run Date: 10/27/2011 02:40
 File ID: T1.102711.024056
 Percent Solid: 92.9

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	10.4		3.97	1.99
Cadmium, Total	7440-43-9	1.34		0.397	0.199

Sample Number: L11100434-26
 Client ID: DE-33C-10102011
 Matrix: Soil
 Workgroup Number: WG380136
 Collect Date: 10/10/2011 15:37
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: D2216-90
 Analytical Method: D2216-90
 Analyst: JDH
 Dilution: 1
 Units: weight %

Instrument: BAL001
 Prep Date: 10/26/2011 08:59
 Cal Date:
 Run Date: 10/26/2011 08:59
 File ID: B1.380136-0126

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	92.9		1.00	1.00



Report Number: L11100434
 Report Date : November 8, 2011

Sample Number: L11100434-27
 Client ID: DE-33D-10102011
 Matrix: Soil
 Workgroup Number: WG379981
 Collect Date: 10/10/2011 15:40
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: PDM
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO1
 Prep Date: 10/17/2011 11:20
 Cal Date: 10/24/2011 08:53
 Run Date: 10/25/2011 02:35
 File ID: T1.102511.023538
 Percent Solid: 94.5

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	4.66		3.80	1.90
Cadmium, Total	7440-43-9	0.492		0.380	0.190

Sample Number: L11100434-27
 Client ID: DE-33D-10102011
 Matrix: Soil
 Workgroup Number: WG380136
 Collect Date: 10/10/2011 15:40
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: D2216-90
 Analytical Method: D2216-90
 Analyst: JDH
 Dilution: 1
 Units: weight %

Instrument: BAL001
 Prep Date: 10/26/2011 08:59
 Cal Date:
 Run Date: 10/26/2011 08:59
 File ID: B1.380136-0127

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	94.5		1.00	1.00

Sample Number: L11100434-28
 Client ID: DE-33E-10102011
 Matrix: Soil
 Workgroup Number: WG379981
 Collect Date: 10/10/2011 15:42
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: PDM
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO1
 Prep Date: 10/17/2011 11:20
 Cal Date: 10/24/2011 08:53
 Run Date: 10/25/2011 02:39
 File ID: T1.102511.023920
 Percent Solid: 98.2

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2		U	3.80	1.90
Cadmium, Total	7440-43-9	0.566		0.380	0.190

U Not detected at or above adjusted sample detection limit.

Sample Number: L11100434-28
 Client ID: DE-33E-10102011
 Matrix: Soil
 Workgroup Number: WG380136
 Collect Date: 10/10/2011 15:42
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: D2216-90
 Analytical Method: D2216-90
 Analyst: JDH
 Dilution: 1
 Units: weight %

Instrument: BAL001
 Prep Date: 10/26/2011 08:59
 Cal Date:
 Run Date: 10/26/2011 08:59
 File ID: B1.380136-0128

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	98.2		1.00	1.00



Report Number: L11100434
 Report Date : November 8, 2011

Sample Number: <u>L11100434-29</u>	PrePrep Method: <u>NONE</u>	Instrument: <u>ICP-THERMO1</u>
Client ID: <u>DE-33F-10102011</u>	Prep Method: <u>3051A</u>	Prep Date: <u>10/17/2011 11:21</u>
Matrix: <u>Soil</u>	Analytical Method: <u>6010B</u>	Cal Date: <u>10/24/2011 08:53</u>
Workgroup Number: <u>WG379981</u>	Analyst: <u>PDM</u>	Run Date: <u>10/25/2011 03:01</u>
Collect Date: <u>10/10/2011 15:45</u>	Dilution: <u>1</u>	File ID: <u>T1.102511.030125</u>
Sample Tag: <u>01</u>	Units: <u>mg/kg</u>	Percent Solid: <u>97.6</u>

Analyte	CAS. Number	Result	Qual	RL	MDL
Cadmium, Total	7440-43-9	0.354	J	0.387	0.194

J Estimated value; the analyte concentration was less than the RL/LOQ.

Sample Number: <u>L11100434-29</u>	PrePrep Method: <u>NONE</u>	Instrument: <u>ICP-THERMO1</u>
Client ID: <u>DE-33F-10102011</u>	Prep Method: <u>3051A</u>	Prep Date: <u>10/17/2011 11:21</u>
Matrix: <u>Soil</u>	Analytical Method: <u>6010B</u>	Cal Date: <u>10/31/2011 09:17</u>
Workgroup Number: <u>WG379981</u>	Analyst: <u>PDM</u>	Run Date: <u>10/31/2011 09:44</u>
Collect Date: <u>10/10/2011 15:45</u>	Dilution: <u>1</u>	File ID: <u>T1.103111.094448</u>
Sample Tag: <u>02</u>	Units: <u>mg/kg</u>	Percent Solid: <u>97.6</u>

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	2.77	J	3.87	1.94

J Estimated value; the analyte concentration was less than the RL/LOQ.

Sample Number: <u>L11100434-29</u>	PrePrep Method: <u>NONE</u>	Instrument: <u>BAL001</u>
Client ID: <u>DE-33F-10102011</u>	Prep Method: <u>D2216-90</u>	Prep Date: <u>10/26/2011 08:59</u>
Matrix: <u>Soil</u>	Analytical Method: <u>D2216-90</u>	Cal Date: _____
Workgroup Number: <u>WG380136</u>	Analyst: <u>JDH</u>	Run Date: <u>10/26/2011 08:59</u>
Collect Date: <u>10/10/2011 15:45</u>	Dilution: <u>1</u>	File ID: <u>B1.380136-0129</u>
Sample Tag: <u>01</u>	Units: <u>weight %</u>	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	97.6		1.00	1.00

Sample Number: <u>L11100434-30</u>	PrePrep Method: <u>NONE</u>	Instrument: <u>ICP-THERMO1</u>
Client ID: <u>DE-33G-10102011</u>	Prep Method: <u>3051A</u>	Prep Date: <u>10/17/2011 11:22</u>
Matrix: <u>Soil</u>	Analytical Method: <u>6010B</u>	Cal Date: <u>10/24/2011 08:53</u>
Workgroup Number: <u>WG379981</u>	Analyst: <u>PDM</u>	Run Date: <u>10/25/2011 03:05</u>
Collect Date: <u>10/10/2011 15:53</u>	Dilution: <u>1</u>	File ID: <u>T1.102511.030515</u>
Sample Tag: <u>01</u>	Units: <u>mg/kg</u>	Percent Solid: <u>93.3</u>

Analyte	CAS. Number	Result	Qual	RL	MDL
Cadmium, Total	7440-43-9	0.998		0.406	0.203



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-30
 Client ID: DE-33G-10102011
 Matrix: Soil
 Workgroup Number: WG379981
 Collect Date: 10/10/2011 15:53
 Sample Tag: 02

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: PDM
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO1
 Prep Date: 10/17/2011 11:22
 Cal Date: 10/31/2011 09:17
 Run Date: 10/31/2011 09:48
 File ID: T1.103111.094840
 Percent Solid: 93.3

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	6.35		4.06	2.03

Sample Number: L11100434-30
 Client ID: DE-33G-10102011
 Matrix: Soil
 Workgroup Number: WG380136
 Collect Date: 10/10/2011 15:53
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: D2216-90
 Analytical Method: D2216-90
 Analyst: JDH
 Dilution: 1
 Units: weight %

Instrument: BAL001
 Prep Date: 10/26/2011 08:59
 Cal Date:
 Run Date: 10/26/2011 08:59
 File ID: B1.380136-0130

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	93.3		1.00	1.00

Sample Number: L11100434-31
 Client ID: DUP-SOIL-10102011-01
 Matrix: Soil
 Workgroup Number: WG379981
 Collect Date: 10/10/2011 08:00
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: PDM
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO1
 Prep Date: 10/17/2011 11:23
 Cal Date: 10/24/2011 08:53
 Run Date: 10/25/2011 03:08
 File ID: T1.102511.030856
 Percent Solid: 97.4

Analyte	CAS. Number	Result	Qual	RL	MDL
Cadmium, Total	7440-43-9	1.52		0.356	0.178

Sample Number: L11100434-31
 Client ID: DUP-SOIL-10102011-01
 Matrix: Soil
 Workgroup Number: WG379981
 Collect Date: 10/10/2011 08:00
 Sample Tag: 02

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: PDM
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO1
 Prep Date: 10/17/2011 11:23
 Cal Date: 10/31/2011 09:17
 Run Date: 10/31/2011 09:52
 File ID: T1.103111.095231
 Percent Solid: 97.4

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	7.26		3.56	1.78



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-31
 Client ID: DUP-SOIL-10102011-01
 Matrix: Soil
 Workgroup Number: WG380136
 Collect Date: 10/10/2011 08:00
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: D2216-90
 Analytical Method: D2216-90
 Analyst: JDH
 Dilution: 1
 Units: weight %

Instrument: BAL001
 Prep Date: 10/26/2011 08:59
 Cal Date:
 Run Date: 10/26/2011 08:59
 File ID: B1.380136-0131

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	97.4		1.00	1.00

Sample Number: L11100434-32
 Client ID: DUP-SOIL-10102011-02
 Matrix: Soil
 Workgroup Number: WG379981
 Collect Date: 10/10/2011 08:05
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: PDM
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO1
 Prep Date: 10/17/2011 11:23
 Cal Date: 10/24/2011 08:53
 Run Date: 10/25/2011 03:12
 File ID: T1.102511.031240
 Percent Solid: 92.1

Analyte	CAS. Number	Result	Qual	RL	MDL
Cadmium, Total	7440-43-9	0.996		0.398	0.199

Sample Number: L11100434-32
 Client ID: DUP-SOIL-10102011-02
 Matrix: Soil
 Workgroup Number: WG379981
 Collect Date: 10/10/2011 08:05
 Sample Tag: 02

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: PDM
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO1
 Prep Date: 10/17/2011 11:23
 Cal Date: 10/31/2011 09:17
 Run Date: 10/31/2011 09:56
 File ID: T1.103111.095621
 Percent Solid: 92.1

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	9.57		3.98	1.99

Sample Number: L11100434-32
 Client ID: DUP-SOIL-10102011-02
 Matrix: Soil
 Workgroup Number: WG380136
 Collect Date: 10/10/2011 08:05
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: D2216-90
 Analytical Method: D2216-90
 Analyst: JDH
 Dilution: 1
 Units: weight %

Instrument: BAL001
 Prep Date: 10/26/2011 08:59
 Cal Date:
 Run Date: 10/26/2011 08:59
 File ID: B1.380136-0132

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	92.1		1.00	1.00



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-33
 Client ID: DE-29A-10112011
 Matrix: Soil
 Workgroup Number: WG379981
 Collect Date: 10/11/2011 08:38
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: PDM
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO1
 Prep Date: 10/17/2011 11:23
 Cal Date: 10/24/2011 08:53
 Run Date: 10/25/2011 03:16
 File ID: T1.102511.031622
 Percent Solid: 70.8

Analyte	CAS. Number	Result	Qual	RL	MDL
Cadmium, Total	7440-43-9	19.3		0.517	0.258

Sample Number: L11100434-33
 Client ID: DE-29A-10112011
 Matrix: Soil
 Workgroup Number: WG379981
 Collect Date: 10/11/2011 08:38
 Sample Tag: 02

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: PDM
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO1
 Prep Date: 10/17/2011 11:23
 Cal Date: 10/31/2011 09:17
 Run Date: 10/31/2011 10:00
 File ID: T1.103111.100011
 Percent Solid: 70.8

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	72.9		5.17	2.58

Sample Number: L11100434-33
 Client ID: DE-29A-10112011
 Matrix: Soil
 Workgroup Number: WG380136
 Collect Date: 10/11/2011 08:38
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: D2216-90
 Analytical Method: D2216-90
 Analyst: JDH
 Dilution: 1
 Units: weight %

Instrument: BAL001
 Prep Date: 10/26/2011 08:59
 Cal Date:
 Run Date: 10/26/2011 08:59
 File ID: B1.380136-0133

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	70.8		1.00	1.00

Sample Number: L11100434-34
 Client ID: DE-29B-10112011
 Matrix: Soil
 Workgroup Number: WG379981
 Collect Date: 10/11/2011 08:40
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: PDM
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO1
 Prep Date: 10/17/2011 11:24
 Cal Date: 10/24/2011 08:53
 Run Date: 10/25/2011 03:19
 File ID: T1.102511.031953
 Percent Solid: 80.9

Analyte	CAS. Number	Result	Qual	RL	MDL
Cadmium, Total	7440-43-9	14.7		0.464	0.232



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-34
 Client ID: DE-29B-10112011
 Matrix: Soil
 Workgroup Number: WG379981
 Collect Date: 10/11/2011 08:40
 Sample Tag: 02

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: PDM
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO1
 Prep Date: 10/17/2011 11:24
 Cal Date: 10/31/2011 09:17
 Run Date: 10/31/2011 10:03
 File ID: T1.103111.100349
 Percent Solid: 80.9

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	34.8		4.64	2.32

Sample Number: L11100434-34
 Client ID: DE-29B-10112011
 Matrix: Soil
 Workgroup Number: WG380136
 Collect Date: 10/11/2011 08:40
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: D2216-90
 Analytical Method: D2216-90
 Analyst: JDH
 Dilution: 1
 Units: weight %

Instrument: BAL001
 Prep Date: 10/26/2011 08:59
 Cal Date:
 Run Date: 10/26/2011 08:59
 File ID: B1.380136-0134

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	80.9		1.00	1.00

Sample Number: L11100434-35
 Client ID: DE-29C-10112011
 Matrix: Soil
 Workgroup Number: WG379981
 Collect Date: 10/11/2011 08:42
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: PDM
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO1
 Prep Date: 10/17/2011 11:25
 Cal Date: 10/24/2011 08:53
 Run Date: 10/25/2011 03:23
 File ID: T1.102511.032326
 Percent Solid: 89.7

Analyte	CAS. Number	Result	Qual	RL	MDL
Cadmium, Total	7440-43-9	4.35		0.422	0.211

Sample Number: L11100434-35
 Client ID: DE-29C-10112011
 Matrix: Soil
 Workgroup Number: WG379981
 Collect Date: 10/11/2011 08:42
 Sample Tag: 02

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: PDM
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO1
 Prep Date: 10/17/2011 11:25
 Cal Date: 10/31/2011 09:17
 Run Date: 10/31/2011 10:07
 File ID: T1.103111.100733
 Percent Solid: 89.7

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	34.8		4.22	2.11



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: <u>L11100434-35</u>	PrePrep Method: <u>NONE</u>	Instrument: <u>BAL001</u>
Client ID: <u>DE-29C-10112011</u>	Prep Method: <u>D2216-90</u>	Prep Date: <u>10/26/2011 08:59</u>
Matrix: <u>Soil</u>	Analytical Method: <u>D2216-90</u>	Cal Date: _____
Workgroup Number: <u>WG380136</u>	Analyst: <u>JDH</u>	Run Date: <u>10/26/2011 08:59</u>
Collect Date: <u>10/11/2011 08:42</u>	Dilution: <u>1</u>	File ID: <u>B1.380136-0135</u>
Sample Tag: <u>01</u>	Units: <u>weight %</u>	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	89.7		1.00	1.00

Sample Number: <u>L11100434-36</u>	PrePrep Method: <u>NONE</u>	Instrument: <u>ICP-THERMO1</u>
Client ID: <u>DE-29D-10112011</u>	Prep Method: <u>3051A</u>	Prep Date: <u>10/17/2011 11:25</u>
Matrix: <u>Soil</u>	Analytical Method: <u>6010B</u>	Cal Date: <u>10/24/2011 08:53</u>
Workgroup Number: <u>WG379981</u>	Analyst: <u>PDM</u>	Run Date: <u>10/25/2011 03:27</u>
Collect Date: <u>10/11/2011 08:45</u>	Dilution: <u>1</u>	File ID: <u>T1.102511.032708</u>
Sample Tag: <u>01</u>	Units: <u>mg/kg</u>	Percent Solid: <u>92.3</u>

Analyte	CAS. Number	Result	Qual	RL	MDL
Cadmium, Total	7440-43-9	0.555		0.407	0.204

Sample Number: <u>L11100434-36</u>	PrePrep Method: <u>NONE</u>	Instrument: <u>ICP-THERMO1</u>
Client ID: <u>DE-29D-10112011</u>	Prep Method: <u>3051A</u>	Prep Date: <u>10/17/2011 11:25</u>
Matrix: <u>Soil</u>	Analytical Method: <u>6010B</u>	Cal Date: <u>10/31/2011 09:17</u>
Workgroup Number: <u>WG379981</u>	Analyst: <u>PDM</u>	Run Date: <u>10/31/2011 10:11</u>
Collect Date: <u>10/11/2011 08:45</u>	Dilution: <u>1</u>	File ID: <u>T1.103111.101123</u>
Sample Tag: <u>02</u>	Units: <u>mg/kg</u>	Percent Solid: <u>92.3</u>

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	7.76		4.07	2.04

Sample Number: <u>L11100434-36</u>	PrePrep Method: <u>NONE</u>	Instrument: <u>BAL001</u>
Client ID: <u>DE-29D-10112011</u>	Prep Method: <u>D2216-90</u>	Prep Date: <u>10/26/2011 08:59</u>
Matrix: <u>Soil</u>	Analytical Method: <u>D2216-90</u>	Cal Date: _____
Workgroup Number: <u>WG380136</u>	Analyst: <u>JDH</u>	Run Date: <u>10/26/2011 08:59</u>
Collect Date: <u>10/11/2011 08:45</u>	Dilution: <u>1</u>	File ID: <u>B1.380136-0136</u>
Sample Tag: <u>01</u>	Units: <u>weight %</u>	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	92.3		1.00	1.00

Report Number: L11100434
 Report Date : November 8, 2011

Sample Number: L11100434-37
 Client ID: DE-29E-10112011
 Matrix: Soil
 Workgroup Number: WG379347
 Collect Date: 10/11/2011 08:47
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: EDL
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 10/18/2011 07:40
 Cal Date: 10/18/2011 09:56
 Run Date: 10/18/2011 12:08
 File ID: T2.101811.120819
 Percent Solid: 94.6

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2		U	3.77	1.88
Cadmium, Total	7440-43-9		U	0.377	0.188

U Not detected at or above adjusted sample detection limit.

Sample Number: L11100434-37
 Client ID: DE-29E-10112011
 Matrix: Soil
 Workgroup Number: WG380136
 Collect Date: 10/11/2011 08:47
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: D2216-90
 Analytical Method: D2216-90
 Analyst: JDH
 Dilution: 1
 Units: weight %

Instrument: BAL001
 Prep Date: 10/26/2011 08:59
 Cal Date:
 Run Date: 10/26/2011 08:59
 File ID: B1.380136-0137

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	94.6		1.00	1.00

Sample Number: L11100434-38
 Client ID: DE-29E-10112011MS
 Matrix: Soil
 Workgroup Number: WG379347
 Collect Date: 10/11/2011 08:47
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: EDL
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 10/18/2011 07:24
 Cal Date: 10/18/2011 09:56
 Run Date: 10/18/2011 12:11
 File ID: T2.101811.121139
 Percent Solid: 94.6

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	8.97		3.77	1.88
Cadmium, Total	7440-43-9	0.982		0.377	0.188

Sample Number: L11100434-38
 Client ID: DE-29E-10112011MS
 Matrix: Soil
 Workgroup Number: WG380136
 Collect Date: 10/11/2011 08:47
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: D2216-90
 Analytical Method: D2216-90
 Analyst: JDH
 Dilution: 1
 Units: weight %

Instrument: BAL001
 Prep Date: 10/26/2011 08:59
 Cal Date:
 Run Date: 10/26/2011 08:59
 File ID: B1.380136-0138

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	94.6		1.00	1.00



Report Number: L11100434
 Report Date : November 8, 2011

Sample Number: L11100434-39 PrePrep Method: NONE Instrument: ICP-THERMO2
 Client ID: DE-29E-10112011MSD Prep Method: 3051A Prep Date: 10/18/2011 07:24
 Matrix: Soil Analytical Method: 6010B Cal Date: 10/18/2011 09:56
 Workgroup Number: WG379347 Analyst: EDL Run Date: 10/18/2011 12:14
 Collect Date: 10/11/2011 08:47 Dilution: 1 File ID: T2.101811.121454
 Sample Tag: 01 Units: mg/kg Percent Solid: 94.6

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	9.10		3.77	1.88
Cadmium, Total	7440-43-9	0.976		0.377	0.188

Sample Number: L11100434-39 PrePrep Method: NONE Instrument: BAL001
 Client ID: DE-29E-10112011MSD Prep Method: D2216-90 Prep Date: 10/26/2011 08:59
 Matrix: Soil Analytical Method: D2216-90 Cal Date: Run Date: 10/26/2011 08:59
 Workgroup Number: WG380136 Analyst: JDH File ID: B1.380136-0139
 Collect Date: 10/11/2011 08:47 Dilution: 1
 Sample Tag: 01 Units: weight %

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	94.6		1.00	1.00

Sample Number: L11100434-40 PrePrep Method: NONE Instrument: ICP-THERMO1
 Client ID: DE-29F-10112011 Prep Method: 3051A Prep Date: 10/17/2011 11:25
 Matrix: Soil Analytical Method: 6010B Cal Date: 10/24/2011 08:53
 Workgroup Number: WG379981 Analyst: PDM Run Date: 10/25/2011 03:30
 Collect Date: 10/11/2011 08:50 Dilution: 1 File ID: T1.102511.033051
 Sample Tag: 01 Units: mg/kg Percent Solid: 96.5

Analyte	CAS. Number	Result	Qual	RL	MDL
Cadmium, Total	7440-43-9	0.187	J	0.364	0.182

J Estimated value; the analyte concentration was less than the RL/LOQ.

Sample Number: L11100434-40 PrePrep Method: NONE Instrument: ICP-THERMO1
 Client ID: DE-29F-10112011 Prep Method: 3051A Prep Date: 10/17/2011 11:25
 Matrix: Soil Analytical Method: 6010B Cal Date: 10/31/2011 09:17
 Workgroup Number: WG379981 Analyst: PDM Run Date: 10/31/2011 10:15
 Collect Date: 10/11/2011 08:50 Dilution: 1 File ID: T1.103111.101514
 Sample Tag: 02 Units: mg/kg Percent Solid: 96.5

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	2.63	J	3.64	1.82

J Estimated value; the analyte concentration was less than the RL/LOQ.



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: <u>L11100434-40</u>	PrePrep Method: <u>NONE</u>	Instrument: <u>BAL001</u>
Client ID: <u>DE-29F-10112011</u>	Prep Method: <u>D2216-90</u>	Prep Date: <u>10/26/2011 08:59</u>
Matrix: <u>Soil</u>	Analytical Method: <u>D2216-90</u>	Cal Date: _____
Workgroup Number: <u>WG380136</u>	Analyst: <u>JDH</u>	Run Date: <u>10/26/2011 08:59</u>
Collect Date: <u>10/11/2011 08:50</u>	Dilution: <u>1</u>	File ID: <u>B1.380136-0140</u>
Sample Tag: <u>01</u>	Units: <u>weight %</u>	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	96.5		1.00	1.00

Sample Number: <u>L11100434-41</u>	PrePrep Method: <u>NONE</u>	Instrument: <u>ICP-THERMO1</u>
Client ID: <u>DE-29G-10112011</u>	Prep Method: <u>3051A</u>	Prep Date: <u>10/17/2011 11:26</u>
Matrix: <u>Soil</u>	Analytical Method: <u>6010B</u>	Cal Date: <u>10/24/2011 08:53</u>
Workgroup Number: <u>WG379981</u>	Analyst: <u>PDM</u>	Run Date: <u>10/25/2011 03:34</u>
Collect Date: <u>10/11/2011 08:52</u>	Dilution: <u>1</u>	File ID: <u>T1.102511.033440</u>
Sample Tag: <u>01</u>	Units: <u>mg/kg</u>	Percent Solid: <u>96.2</u>

Analyte	CAS. Number	Result	Qual	RL	MDL
Cadmium, Total	7440-43-9	1.02		0.375	0.187

Sample Number: <u>L11100434-41</u>	PrePrep Method: <u>NONE</u>	Instrument: <u>ICP-THERMO1</u>
Client ID: <u>DE-29G-10112011</u>	Prep Method: <u>3051A</u>	Prep Date: <u>10/17/2011 11:26</u>
Matrix: <u>Soil</u>	Analytical Method: <u>6010B</u>	Cal Date: <u>10/31/2011 09:17</u>
Workgroup Number: <u>WG379981</u>	Analyst: <u>PDM</u>	Run Date: <u>10/31/2011 10:19</u>
Collect Date: <u>10/11/2011 08:52</u>	Dilution: <u>1</u>	File ID: <u>T1.103111.101905</u>
Sample Tag: <u>02</u>	Units: <u>mg/kg</u>	Percent Solid: <u>96.2</u>

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	2.85	J	3.75	1.87

J Estimated value; the analyte concentration was less than the RL/LOQ.

Sample Number: <u>L11100434-41</u>	PrePrep Method: <u>NONE</u>	Instrument: <u>BAL001</u>
Client ID: <u>DE-29G-10112011</u>	Prep Method: <u>D2216-90</u>	Prep Date: <u>10/26/2011 08:59</u>
Matrix: <u>Soil</u>	Analytical Method: <u>D2216-90</u>	Cal Date: _____
Workgroup Number: <u>WG380136</u>	Analyst: <u>JDH</u>	Run Date: <u>10/26/2011 08:59</u>
Collect Date: <u>10/11/2011 08:52</u>	Dilution: <u>1</u>	File ID: <u>B1.380136-0141</u>
Sample Tag: <u>01</u>	Units: <u>weight %</u>	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	96.2		1.00	1.00



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: <u>L11100434-42</u>	PrePrep Method: <u>NONE</u>	Instrument: <u>ICP-THERMO1</u>
Client ID: <u>DE-28A-10112011</u>	Prep Method: <u>3051A</u>	Prep Date: <u>10/17/2011 11:26</u>
Matrix: <u>Soil</u>	Analytical Method: <u>6010B</u>	Cal Date: <u>10/24/2011 08:53</u>
Workgroup Number: <u>WG379981</u>	Analyst: <u>PDM</u>	Run Date: <u>10/25/2011 03:45</u>
Collect Date: <u>10/11/2011 09:16</u>	Dilution: <u>1</u>	File ID: <u>T1.102511.034535</u>
Sample Tag: <u>01</u>	Units: <u>mg/kg</u>	Percent Solid: <u>81.0</u>

Analyte	CAS. Number	Result	Qual	RL	MDL
Cadmium, Total	7440-43-9	0.974		0.434	0.217

Sample Number: <u>L11100434-42</u>	PrePrep Method: <u>NONE</u>	Instrument: <u>ICP-THERMO1</u>
Client ID: <u>DE-28A-10112011</u>	Prep Method: <u>3051A</u>	Prep Date: <u>10/17/2011 11:26</u>
Matrix: <u>Soil</u>	Analytical Method: <u>6010B</u>	Cal Date: <u>10/31/2011 09:17</u>
Workgroup Number: <u>WG379981</u>	Analyst: <u>PDM</u>	Run Date: <u>10/31/2011 10:30</u>
Collect Date: <u>10/11/2011 09:16</u>	Dilution: <u>1</u>	File ID: <u>T1.103111.103026</u>
Sample Tag: <u>02</u>	Units: <u>mg/kg</u>	Percent Solid: <u>81.0</u>

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	9.84		4.34	2.17

Sample Number: <u>L11100434-42</u>	PrePrep Method: <u>NONE</u>	Instrument: <u>BAL001</u>
Client ID: <u>DE-28A-10112011</u>	Prep Method: <u>D2216-90</u>	Prep Date: <u>10/26/2011 08:59</u>
Matrix: <u>Soil</u>	Analytical Method: <u>D2216-90</u>	Cal Date:
Workgroup Number: <u>WG380136</u>	Analyst: <u>JDH</u>	Run Date: <u>10/26/2011 08:59</u>
Collect Date: <u>10/11/2011 09:16</u>	Dilution: <u>1</u>	File ID: <u>B1.380136-0142</u>
Sample Tag: <u>01</u>	Units: <u>weight %</u>	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	81.0		1.00	1.00

Sample Number: <u>L11100434-43</u>	PrePrep Method: <u>NONE</u>	Instrument: <u>ICP-THERMO1</u>
Client ID: <u>DE-28B-10112011</u>	Prep Method: <u>3051A</u>	Prep Date: <u>10/17/2011 11:27</u>
Matrix: <u>Soil</u>	Analytical Method: <u>6010B</u>	Cal Date: <u>10/24/2011 08:53</u>
Workgroup Number: <u>WG379981</u>	Analyst: <u>PDM</u>	Run Date: <u>10/25/2011 03:49</u>
Collect Date: <u>10/11/2011 09:18</u>	Dilution: <u>1</u>	File ID: <u>T1.102511.034915</u>
Sample Tag: <u>01</u>	Units: <u>mg/kg</u>	Percent Solid: <u>73.0</u>

Analyte	CAS. Number	Result	Qual	RL	MDL
Cadmium, Total	7440-43-9	1.28		0.498	0.249



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-43 PrePrep Method: NONE Instrument: ICP-THERMO1
 Client ID: DE-28B-10112011 Prep Method: 3051A Prep Date: 10/17/2011 11:27
 Matrix: Soil Analytical Method: 6010B Cal Date: 10/31/2011 09:17
 Workgroup Number: WG379981 Analyst: PDM Run Date: 10/31/2011 10:34
 Collect Date: 10/11/2011 09:18 Dilution: 1 File ID: T1.103111.103413
 Sample Tag: 02 Units: mg/kg Percent Solid: 73.0

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	13.0		4.98	2.49

Sample Number: L11100434-43 PrePrep Method: NONE Instrument: BAL001
 Client ID: DE-28B-10112011 Prep Method: D2216-90 Prep Date: 10/26/2011 08:59
 Matrix: Soil Analytical Method: D2216-90 Cal Date: _____
 Workgroup Number: WG380136 Analyst: JDH Run Date: 10/26/2011 08:59
 Collect Date: 10/11/2011 09:18 Dilution: 1 File ID: B1.380136-0143
 Sample Tag: 01 Units: weight %

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	73.0		1.00	1.00

Sample Number: L11100434-44 PrePrep Method: NONE Instrument: ICP-THERMO1
 Client ID: DE-28C-10112011 Prep Method: 3051A Prep Date: 10/17/2011 11:27
 Matrix: Soil Analytical Method: 6010B Cal Date: 10/24/2011 08:53
 Workgroup Number: WG379981 Analyst: PDM Run Date: 10/25/2011 03:52
 Collect Date: 10/11/2011 09:20 Dilution: 1 File ID: T1.102511.035256
 Sample Tag: 01 Units: mg/kg Percent Solid: 73.3

Analyte	CAS. Number	Result	Qual	RL	MDL
Cadmium, Total	7440-43-9	0.446	J	0.496	0.248

J Estimated value; the analyte concentration was less than the RL/LOQ.

Sample Number: L11100434-44 PrePrep Method: NONE Instrument: ICP-THERMO1
 Client ID: DE-28C-10112011 Prep Method: 3051A Prep Date: 10/17/2011 11:27
 Matrix: Soil Analytical Method: 6010B Cal Date: 10/31/2011 09:17
 Workgroup Number: WG379981 Analyst: PDM Run Date: 10/31/2011 10:38
 Collect Date: 10/11/2011 09:20 Dilution: 1 File ID: T1.103111.103803
 Sample Tag: 02 Units: mg/kg Percent Solid: 73.3

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	12.7		4.96	2.48

Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-44
 Client ID: DE-28C-10112011
 Matrix: Soil
 Workgroup Number: WG380136
 Collect Date: 10/11/2011 09:20
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: D2216-90
 Analytical Method: D2216-90
 Analyst: JDH
 Dilution: 1
 Units: weight %

Instrument: BAL001
 Prep Date: 10/26/2011 08:59
 Cal Date:
 Run Date: 10/26/2011 08:59
 File ID: B1.380136-0144

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	73.3		1.00	1.00

Sample Number: L11100434-45
 Client ID: DE-28D-10112011
 Matrix: Soil
 Workgroup Number: WG379981
 Collect Date: 10/11/2011 09:23
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: PDM
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO1
 Prep Date: 10/17/2011 11:28
 Cal Date: 10/24/2011 08:53
 Run Date: 10/25/2011 03:56
 File ID: T1.102511.035629
 Percent Solid: 79.2

Analyte	CAS. Number	Result	Qual	RL	MDL
Cadmium, Total	7440-43-9		U	0.422	0.211

U Not detected at or above adjusted sample detection limit.

Sample Number: L11100434-45
 Client ID: DE-28D-10112011
 Matrix: Soil
 Workgroup Number: WG379981
 Collect Date: 10/11/2011 09:23
 Sample Tag: 02

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: PDM
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO1
 Prep Date: 10/17/2011 11:28
 Cal Date: 10/31/2011 09:17
 Run Date: 10/31/2011 10:41
 File ID: T1.103111.104145
 Percent Solid: 79.2

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	8.52		4.22	2.11

Sample Number: L11100434-45
 Client ID: DE-28D-10112011
 Matrix: Soil
 Workgroup Number: WG380136
 Collect Date: 10/11/2011 09:23
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: D2216-90
 Analytical Method: D2216-90
 Analyst: JDH
 Dilution: 1
 Units: weight %

Instrument: BAL001
 Prep Date: 10/26/2011 08:59
 Cal Date:
 Run Date: 10/26/2011 08:59
 File ID: B1.380136-0145

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	79.2		1.00	1.00



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: <u>L11100434-46</u>	PrePrep Method: <u>NONE</u>	Instrument: <u>ICP-THERMO1</u>
Client ID: <u>DE-28E-10112011</u>	Prep Method: <u>3051A</u>	Prep Date: <u>10/17/2011 11:28</u>
Matrix: <u>Soil</u>	Analytical Method: <u>6010B</u>	Cal Date: <u>10/24/2011 08:53</u>
Workgroup Number: <u>WG379981</u>	Analyst: <u>PDM</u>	Run Date: <u>10/25/2011 04:00</u>
Collect Date: <u>10/11/2011 09:25</u>	Dilution: <u>1</u>	File ID: <u>T1.102511.040018</u>
Sample Tag: <u>01</u>	Units: <u>mg/kg</u>	Percent Solid: <u>78.1</u>

Analyte	CAS. Number	Result	Qual	RL	MDL
Cadmium, Total	7440-43-9		U	0.481	0.240

U Not detected at or above adjusted sample detection limit.

Sample Number: <u>L11100434-46</u>	PrePrep Method: <u>NONE</u>	Instrument: <u>ICP-THERMO1</u>
Client ID: <u>DE-28E-10112011</u>	Prep Method: <u>3051A</u>	Prep Date: <u>10/17/2011 11:28</u>
Matrix: <u>Soil</u>	Analytical Method: <u>6010B</u>	Cal Date: <u>10/31/2011 09:17</u>
Workgroup Number: <u>WG379981</u>	Analyst: <u>PDM</u>	Run Date: <u>10/31/2011 10:45</u>
Collect Date: <u>10/11/2011 09:25</u>	Dilution: <u>1</u>	File ID: <u>T1.103111.104535</u>
Sample Tag: <u>02</u>	Units: <u>mg/kg</u>	Percent Solid: <u>78.1</u>

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	5.87		4.81	2.40

Sample Number: <u>L11100434-46</u>	PrePrep Method: <u>NONE</u>	Instrument: <u>BAL001</u>
Client ID: <u>DE-28E-10112011</u>	Prep Method: <u>D2216-90</u>	Prep Date: <u>10/26/2011 08:59</u>
Matrix: <u>Soil</u>	Analytical Method: <u>D2216-90</u>	Cal Date:
Workgroup Number: <u>WG380136</u>	Analyst: <u>JDH</u>	Run Date: <u>10/26/2011 08:59</u>
Collect Date: <u>10/11/2011 09:25</u>	Dilution: <u>1</u>	File ID: <u>B1.380136-0146</u>
Sample Tag: <u>01</u>	Units: <u>weight %</u>	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	78.1		1.00	1.00

Sample Number: <u>L11100434-47</u>	PrePrep Method: <u>NONE</u>	Instrument: <u>ICP-THERMO1</u>
Client ID: <u>DE-28F-10112011</u>	Prep Method: <u>3051A</u>	Prep Date: <u>10/17/2011 11:29</u>
Matrix: <u>Soil</u>	Analytical Method: <u>6010B</u>	Cal Date: <u>10/24/2011 08:53</u>
Workgroup Number: <u>WG379981</u>	Analyst: <u>PDM</u>	Run Date: <u>10/25/2011 04:04</u>
Collect Date: <u>10/11/2011 09:28</u>	Dilution: <u>1</u>	File ID: <u>T1.102511.040407</u>
Sample Tag: <u>01</u>	Units: <u>mg/kg</u>	Percent Solid: <u>80.8</u>

Analyte	CAS. Number	Result	Qual	RL	MDL
Cadmium, Total	7440-43-9		U	0.445	0.222

U Not detected at or above adjusted sample detection limit.

Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-47
 Client ID: DE-28F-10112011
 Matrix: Soil
 Workgroup Number: WG379981
 Collect Date: 10/11/2011 09:28
 Sample Tag: 02

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: PDM
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO1
 Prep Date: 10/17/2011 11:29
 Cal Date: 10/31/2011 09:17
 Run Date: 10/31/2011 10:49
 File ID: T1.103111.104925
 Percent Solid: 80.8

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	4.46		4.45	2.22

Sample Number: L11100434-47
 Client ID: DE-28F-10112011
 Matrix: Soil
 Workgroup Number: WG380136
 Collect Date: 10/11/2011 09:28
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: D2216-90
 Analytical Method: D2216-90
 Analyst: JDH
 Dilution: 1
 Units: weight %

Instrument: BAL001
 Prep Date: 10/26/2011 08:59
 Cal Date:
 Run Date: 10/26/2011 08:59
 File ID: B1.380136-0147

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	80.8		1.00	1.00

Sample Number: L11100434-48
 Client ID: DE-28G-10112011
 Matrix: Soil
 Workgroup Number: WG379981
 Collect Date: 10/11/2011 09:33
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: PDM
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO1
 Prep Date: 10/17/2011 11:29
 Cal Date: 10/24/2011 08:53
 Run Date: 10/25/2011 04:07
 File ID: T1.102511.040749
 Percent Solid: 79.5

Analyte	CAS. Number	Result	Qual	RL	MDL
Cadmium, Total	7440-43-9		U	0.461	0.230

U Not detected at or above adjusted sample detection limit.

Sample Number: L11100434-48
 Client ID: DE-28G-10112011
 Matrix: Soil
 Workgroup Number: WG379981
 Collect Date: 10/11/2011 09:33
 Sample Tag: 02

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: PDM
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO1
 Prep Date: 10/17/2011 11:29
 Cal Date: 10/31/2011 09:17
 Run Date: 10/31/2011 10:53
 File ID: T1.103111.105318
 Percent Solid: 79.5

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	8.42		4.61	2.30



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-48 PrePrep Method: NONE Instrument: BAL001
 Client ID: DE-28G-10112011 Prep Method: D2216-90 Prep Date: 10/26/2011 08:59
 Matrix: Soil Analytical Method: D2216-90 Cal Date: _____
 Workgroup Number: WG380136 Analyst: JDH Run Date: 10/26/2011 08:59
 Collect Date: 10/11/2011 09:33 Dilution: 1 File ID: B1.380136-0148
 Sample Tag: 01 Units: weight %

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	79.5		1.00	1.00

Sample Number: L11100434-49 PrePrep Method: NONE Instrument: ICP-THERMO2
 Client ID: DE-27A-10112011 Prep Method: 3051A Prep Date: 10/18/2011 07:43
 Matrix: Soil Analytical Method: 6010B Cal Date: 10/18/2011 09:56
 Workgroup Number: WG379347 Analyst: EDL Run Date: 10/18/2011 12:18
 Collect Date: 10/11/2011 09:52 Dilution: 1 File ID: T2.101811.121809
 Sample Tag: 01 Units: mg/kg Percent Solid: 72.9

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	9.54		5.05	2.52
Cadmium, Total	7440-43-9	0.639		0.505	0.252

Sample Number: L11100434-49 PrePrep Method: NONE Instrument: BAL001
 Client ID: DE-27A-10112011 Prep Method: D2216-90 Prep Date: 10/26/2011 08:59
 Matrix: Soil Analytical Method: D2216-90 Cal Date: _____
 Workgroup Number: WG380136 Analyst: JDH Run Date: 10/26/2011 08:59
 Collect Date: 10/11/2011 09:52 Dilution: 1 File ID: B1.380136-0149
 Sample Tag: 01 Units: weight %

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	72.9		1.00	1.00

Sample Number: L11100434-50 PrePrep Method: NONE Instrument: ICP-THERMO2
 Client ID: DE-27B-10112011 Prep Method: 3051A Prep Date: 10/18/2011 07:43
 Matrix: Soil Analytical Method: 6010B Cal Date: 10/18/2011 09:56
 Workgroup Number: WG379347 Analyst: EDL Run Date: 10/18/2011 12:21
 Collect Date: 10/11/2011 09:54 Dilution: 1 File ID: T2.101811.122116
 Sample Tag: 01 Units: mg/kg Percent Solid: 79.3

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	9.83		4.68	2.34
Cadmium, Total	7440-43-9	0.631		0.468	0.234

Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-50 PrePrep Method: NONE Instrument: BAL001
 Client ID: DE-27B-10112011 Prep Method: D2216-90 Prep Date: 10/26/2011 08:59
 Matrix: Soil Analytical Method: D2216-90 Cal Date: _____
 Workgroup Number: WG380136 Analyst: JDH Run Date: 10/26/2011 08:59
 Collect Date: 10/11/2011 09:54 Dilution: 1 File ID: B1.380136-0150
 Sample Tag: 01 Units: weight %

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	79.3		1.00	1.00

Sample Number: L11100434-51 PrePrep Method: NONE Instrument: ICP-THERMO2
 Client ID: DE-27C-10112011 Prep Method: 3051A Prep Date: 10/18/2011 07:44
 Matrix: Soil Analytical Method: 6010B Cal Date: 10/18/2011 09:56
 Workgroup Number: WG379347 Analyst: EDL Run Date: 10/18/2011 12:40
 Collect Date: 10/11/2011 09:56 Dilution: 1 File ID: T2.101811.124049
 Sample Tag: 01 Units: mg/kg Percent Solid: 87.2

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	22.4		3.84	1.92
Cadmium, Total	7440-43-9	0.358	J	0.384	0.192

J Estimated value; the analyte concentration was less than the RL/LOQ.

Sample Number: L11100434-51 PrePrep Method: NONE Instrument: BAL001
 Client ID: DE-27C-10112011 Prep Method: D2216-90 Prep Date: 10/26/2011 08:59
 Matrix: Soil Analytical Method: D2216-90 Cal Date: _____
 Workgroup Number: WG380136 Analyst: JDH Run Date: 10/26/2011 08:59
 Collect Date: 10/11/2011 09:56 Dilution: 1 File ID: B1.380136-0151
 Sample Tag: 01 Units: weight %

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	87.2		1.00	1.00

Sample Number: L11100434-52 PrePrep Method: NONE Instrument: ICP-THERMO2
 Client ID: DE-27D-10112011 Prep Method: 3051A Prep Date: 10/18/2011 07:44
 Matrix: Soil Analytical Method: 6010B Cal Date: 10/18/2011 09:56
 Workgroup Number: WG379347 Analyst: EDL Run Date: 10/18/2011 12:44
 Collect Date: 10/11/2011 09:59 Dilution: 1 File ID: T2.101811.124404
 Sample Tag: 01 Units: mg/kg Percent Solid: 87.5

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	5.39		4.21	2.10
Cadmium, Total	7440-43-9		U	0.421	0.210

U Not detected at or above adjusted sample detection limit.

Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-52 PrePrep Method: NONE Instrument: BAL001
 Client ID: DE-27D-10112011 Prep Method: D2216-90 Prep Date: 10/26/2011 08:59
 Matrix: Soil Analytical Method: D2216-90 Cal Date: _____
 Workgroup Number: WG380136 Analyst: JDH Run Date: 10/26/2011 08:59
 Collect Date: 10/11/2011 09:59 Dilution: 1 File ID: B1.380136-0152
 Sample Tag: 01 Units: weight %

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	87.5		1.00	1.00

Sample Number: L11100434-53 PrePrep Method: NONE Instrument: ICP-THERMO2
 Client ID: DE-27E-10112011 Prep Method: 3051A Prep Date: 10/18/2011 07:45
 Matrix: Soil Analytical Method: 6010B Cal Date: 10/18/2011 09:56
 Workgroup Number: WG379347 Analyst: EDL Run Date: 10/18/2011 12:47
 Collect Date: 10/11/2011 10:01 Dilution: 1 File ID: T2.101811.124727
 Sample Tag: 01 Units: mg/kg Percent Solid: 87.5

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	4.47		4.14	2.07
Cadmium, Total	7440-43-9		U	0.414	0.207

U Not detected at or above adjusted sample detection limit.

Sample Number: L11100434-53 PrePrep Method: NONE Instrument: BAL001
 Client ID: DE-27E-10112011 Prep Method: D2216-90 Prep Date: 10/26/2011 08:59
 Matrix: Soil Analytical Method: D2216-90 Cal Date: _____
 Workgroup Number: WG380136 Analyst: JDH Run Date: 10/26/2011 08:59
 Collect Date: 10/11/2011 10:01 Dilution: 1 File ID: B1.380136-0153
 Sample Tag: 01 Units: weight %

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	87.5		1.00	1.00

Sample Number: L11100434-54 PrePrep Method: NONE Instrument: ICP-THERMO2
 Client ID: DE-27F-10112011 Prep Method: 3051A Prep Date: 10/18/2011 07:45
 Matrix: Soil Analytical Method: 6010B Cal Date: 10/18/2011 09:56
 Workgroup Number: WG379347 Analyst: EDL Run Date: 10/18/2011 12:50
 Collect Date: 10/11/2011 10:03 Dilution: 1 File ID: T2.101811.125052
 Sample Tag: 01 Units: mg/kg Percent Solid: 89.9

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	5.83		3.96	1.98
Cadmium, Total	7440-43-9		U	0.396	0.198

U Not detected at or above adjusted sample detection limit.

Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-54 PrePrep Method: NONE Instrument: BAL001
 Client ID: DE-27F-10112011 Prep Method: D2216-90 Prep Date: 10/26/2011 08:59
 Matrix: Soil Analytical Method: D2216-90 Cal Date: _____
 Workgroup Number: WG380136 Analyst: JDH Run Date: 10/26/2011 08:59
 Collect Date: 10/11/2011 10:03 Dilution: 1 File ID: B1.380136-0154
 Sample Tag: 01 Units: weight %

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	89.9		1.00	1.00

Sample Number: L11100434-55 PrePrep Method: NONE Instrument: ICP-THERMO2
 Client ID: DE-27G-10112011 Prep Method: 3051A Prep Date: 10/18/2011 07:46
 Matrix: Soil Analytical Method: 6010B Cal Date: 10/18/2011 09:56
 Workgroup Number: WG379347 Analyst: EDL Run Date: 10/18/2011 12:54
 Collect Date: 10/11/2011 10:08 Dilution: 1 File ID: T2.101811.125411
 Sample Tag: 01 Units: mg/kg Percent Solid: 81.9

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	3.91	J	4.08	2.04
Cadmium, Total	7440-43-9		U	0.408	0.204

U Not detected at or above adjusted sample detection limit.

J Estimated value; the analyte concentration was less than the RL/LOQ.

Sample Number: L11100434-55 PrePrep Method: NONE Instrument: BAL001
 Client ID: DE-27G-10112011 Prep Method: D2216-90 Prep Date: 10/26/2011 08:59
 Matrix: Soil Analytical Method: D2216-90 Cal Date: _____
 Workgroup Number: WG380136 Analyst: JDH Run Date: 10/26/2011 08:59
 Collect Date: 10/11/2011 10:08 Dilution: 1 File ID: B1.380136-0155
 Sample Tag: 01 Units: weight %

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	81.9		1.00	1.00

Sample Number: L11100434-56 PrePrep Method: NONE Instrument: ICP-THERMO2
 Client ID: DUP-SOIL-10112011-01 Prep Method: 3051A Prep Date: 10/18/2011 07:46
 Matrix: Soil Analytical Method: 6010B Cal Date: 10/18/2011 09:56
 Workgroup Number: WG379347 Analyst: EDL Run Date: 10/18/2011 12:57
 Collect Date: 10/11/2011 08:00 Dilution: 1 File ID: T2.101811.125735
 Sample Tag: 01 Units: mg/kg Percent Solid: 94.7

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	2.87	J	3.61	1.81
Cadmium, Total	7440-43-9	0.961		0.361	0.181

J Estimated value; the analyte concentration was less than the RL/LOQ.

Report Number: L11100434
 Report Date : November 8, 2011

Sample Number: L11100434-56
 Client ID: DUP-SOIL-10112011-01
 Matrix: Soil
 Workgroup Number: WG380136
 Collect Date: 10/11/2011 08:00
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: D2216-90
 Analytical Method: D2216-90
 Analyst: JDH
 Dilution: 1
 Units: weight %

Instrument: BAL001
 Prep Date: 10/26/2011 08:59
 Cal Date:
 Run Date: 10/26/2011 08:59
 File ID: B1.380136-0156

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	94.7		1.00	1.00

Sample Number: L11100434-57
 Client ID: DUP-SOIL-10112011-02
 Matrix: Soil
 Workgroup Number: WG379347
 Collect Date: 10/11/2011 08:05
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: EDL
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 10/18/2011 07:47
 Cal Date: 10/18/2011 09:56
 Run Date: 10/18/2011 13:00
 File ID: T2.101811.130052
 Percent Solid: 89.7

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	15.2		3.92	1.96
Cadmium, Total	7440-43-9	0.362	J	0.392	0.196

J Estimated value; the analyte concentration was less than the RL/LOQ.

Sample Number: L11100434-57
 Client ID: DUP-SOIL-10112011-02
 Matrix: Soil
 Workgroup Number: WG380136
 Collect Date: 10/11/2011 08:05
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: D2216-90
 Analytical Method: D2216-90
 Analyst: JDH
 Dilution: 1
 Units: weight %

Instrument: BAL001
 Prep Date: 10/26/2011 08:59
 Cal Date:
 Run Date: 10/26/2011 08:59
 File ID: B1.380136-0157

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	89.7		1.00	1.00

Sample Number: L11100434-58
 Client ID: EB-SOIL-10112011
 Matrix: Water
 Workgroup Number: WG380105
 Collect Date: 10/11/2011 17:30
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3015
 Analytical Method: 6020
 Analyst: JYH
 Dilution: 1
 Units: mg/L

Instrument: ELAN-ICP
 Prep Date: 10/18/2011 06:38
 Cal Date: 10/26/2011 09:48
 Run Date: 10/26/2011 18:09
 File ID: EL.102611.180910

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2		U	0.00100	0.000500
Cadmium, Total	7440-43-9		U	0.000600	0.000300

U Not detected at or above adjusted sample detection limit.



2.1 Metals Data

2.1.1 Metals I C P Data

2.1.1.1 Summary Data



Login Number: L11100434
Department: Metals
Analyst: Erin Long
Analyst #2: Pierce Morris

METHOD

Preparation: SW-846 3051

Analysis: SW-846 6010

HOLDING TIMES

Sample Preparation: All holding times were met.

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial Calibration: All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Interference Check Standards: All acceptance criteria were met.

Continuing Calibration Verification: WG379981 - Due to continuing calibration verification failure for arsenic on 25-OCT-2011 at 03:38, client samples 29 through 36 and 40 through 48 were reanalyzed on a later calibration for arsenic.

Continuing Calibration Blank: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Serial Dilution/Post Digestion Spikes: WG379202 - All acceptance criteria were met.

WG379620 - All acceptance criteria were met.

WG379347 - All acceptance criteria were met.

WG379981 - All acceptance criteria were met.

Matrix Spikes: WG379202 - Sample 14 was chosen by the client for MS/MSD analysis. Samples 15(MS) and 16(MSD) yielded noncompliant recoveries and a noncompliant RPD for cadmium.

WG379347 - Sample 37 was chosen by the client for MS/MSD analysis. Samples 38(MS) and 39(MSD) yielded a noncompliant recovery for arsenic.

WG379981 - Sample 20 was chosen by the client for MS/MSD analysis. Samples 21(MS) and 22(MSD) yielded noncompliant recoveries for arsenic and cadmium.

SAMPLES

Samples: All acceptance criteria were met.

Narrative ID: 36603

Approved By: Sheri Pfalzgraf

Shari L. Pappas

LABORATORY REPORT

L11100434

11/08/11 11:21

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta, OH 45750
(740) 373-4071

For

Account Name: CH2MHILL, Inc
CH2MHILL
1034 S. Brentwood Blvd, Suite 2300
Richmond Heights, MO 63117
Attention: Shane Lowe

Project Number: 2736.103
Project: DOW WATERLOO Soil & GW
Site: WATERLOO
Invoice Number: 621118
P.O. Number: 416903-1

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
DE-30A-10102011	L11100434-01	6010B	1	13-OCT-11
DE-30B-10102011	L11100434-02	6010B	1	13-OCT-11
DE-30C-10102011	L11100434-03	6010B	1	13-OCT-11
DE-30D-10102011	L11100434-04	6010B	1	13-OCT-11
DE-30E-10102011	L11100434-05	6010B	1	13-OCT-11
DE-30F-10102011	L11100434-06	6010B	1	13-OCT-11
DE-30G-10102011	L11100434-07	6010B	1	13-OCT-11
DE-31A-10102011	L11100434-08	6010B	1	13-OCT-11
DE-31B-10102011	L11100434-09	6010B	1	13-OCT-11
DE-31C-10102011	L11100434-10	6010B	1	13-OCT-11
DE-31D-10102011	L11100434-11	6010B	1	13-OCT-11
DE-31E-10102011	L11100434-12	6010B	1	13-OCT-11
DE-31F-10102011	L11100434-13	6010B	1	13-OCT-11
DE-31G-10102011	L11100434-14	6010B	1	13-OCT-11
DE-31G-10102011MS	L11100434-15	6010B	1	13-OCT-11
DE-31G-10102011MSD	L11100434-16	6010B	1	13-OCT-11
DE-32A-10102011	L11100434-17	6010B	1	13-OCT-11
DE-32B-10102011	L11100434-18	6010B	1	13-OCT-11
DE-32C-10102011	L11100434-19	6010B	1	13-OCT-11
DE-32D-10102011	L11100434-20	6010B	1	13-OCT-11
DE-32D-10102011MS	L11100434-21	6010B	1	13-OCT-11
DE-32D-10102011MSD	L11100434-22	6010B	1	13-OCT-11
DE-32E-10102011	L11100434-23	6010B	1	13-OCT-11
DE-33A-10102011	L11100434-24	6010B	1	13-OCT-11
DE-33B-10102011	L11100434-25	6010B	1	13-OCT-11
DE-33C-10102011	L11100434-26	6010B	1	13-OCT-11
DE-33D-10102011	L11100434-27	6010B	1	13-OCT-11
DE-33E-10102011	L11100434-28	6010B	1	13-OCT-11

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LABORATORY REPORT

L11100434

11/08/11 11:21

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
DE-33F-10102011	L11100434-29	6010B	1	13-OCT-11
DE-33F-10102011	L11100434-29	6010B	1	13-OCT-11
DE-33G-10102011	L11100434-30	6010B	1	13-OCT-11
DE-33G-10102011	L11100434-30	6010B	1	13-OCT-11
DUP-SOIL-10102011-01	L11100434-31	6010B	1	13-OCT-11
DUP-SOIL-10102011-01	L11100434-31	6010B	1	13-OCT-11
DUP-SOIL-10102011-02	L11100434-32	6010B	1	13-OCT-11
DUP-SOIL-10102011-02	L11100434-32	6010B	1	13-OCT-11
DE-29A-10112011	L11100434-33	6010B	1	13-OCT-11
DE-29A-10112011	L11100434-33	6010B	1	13-OCT-11
DE-29B-10112011	L11100434-34	6010B	1	13-OCT-11
DE-29B-10112011	L11100434-34	6010B	1	13-OCT-11
DE-29C-10112011	L11100434-35	6010B	1	13-OCT-11
DE-29C-10112011	L11100434-35	6010B	1	13-OCT-11
DE-29D-10112011	L11100434-36	6010B	1	13-OCT-11
DE-29D-10112011	L11100434-36	6010B	1	13-OCT-11
DE-29E-10112011	L11100434-37	6010B	1	13-OCT-11
DE-29E-10112011MS	L11100434-38	6010B	1	13-OCT-11
DE-29E-10112011MSD	L11100434-39	6010B	1	13-OCT-11
DE-29F-10112011	L11100434-40	6010B	1	13-OCT-11
DE-29F-10112011	L11100434-40	6010B	1	13-OCT-11
DE-29G-10112011	L11100434-41	6010B	1	13-OCT-11
DE-29G-10112011	L11100434-41	6010B	1	13-OCT-11
DE-28A-10112011	L11100434-42	6010B	1	13-OCT-11
DE-28A-10112011	L11100434-42	6010B	1	13-OCT-11
DE-28B-10112011	L11100434-43	6010B	1	13-OCT-11
DE-28B-10112011	L11100434-43	6010B	1	13-OCT-11
DE-28C-10112011	L11100434-44	6010B	1	13-OCT-11
DE-28C-10112011	L11100434-44	6010B	1	13-OCT-11
DE-28D-10112011	L11100434-45	6010B	1	13-OCT-11
DE-28D-10112011	L11100434-45	6010B	1	13-OCT-11
DE-28E-10112011	L11100434-46	6010B	1	13-OCT-11
DE-28E-10112011	L11100434-46	6010B	1	13-OCT-11
DE-28F-10112011	L11100434-47	6010B	1	13-OCT-11
DE-28F-10112011	L11100434-47	6010B	1	13-OCT-11
DE-28G-10112011	L11100434-48	6010B	1	13-OCT-11
DE-28G-10112011	L11100434-48	6010B	1	13-OCT-11
DE-27A-10112011	L11100434-49	6010B	1	13-OCT-11
DE-27B-10112011	L11100434-50	6010B	1	13-OCT-11
DE-27C-10112011	L11100434-51	6010B	1	13-OCT-11
DE-27D-10112011	L11100434-52	6010B	1	13-OCT-11
DE-27E-10112011	L11100434-53	6010B	1	13-OCT-11
DE-27F-10112011	L11100434-54	6010B	1	13-OCT-11
DE-27G-10112011	L11100434-55	6010B	1	13-OCT-11
DUP-SOIL-10112011-01	L11100434-56	6010B	1	13-OCT-11

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LABORATORY REPORT

L11100434

11/08/11 11:21

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
DUP-SOIL-10112011-02	L11100434-57	6010B	1	13-OCT-11

L1_A_PROD - Modified 03/06/2008
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Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-01
 Client ID: DE-30A-10102011
 Matrix: Soil
 Workgroup Number: WG379202
 Collect Date: 10/10/2011 13:15
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: EDL
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 10/17/2011 07:25
 Cal Date: 10/17/2011 09:49
 Run Date: 10/17/2011 12:40
 File ID: T2.101711.124022
 Percent Solid: 74.1

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	92.9		5.11	2.56
Cadmium, Total	7440-43-9	5.02		0.511	0.256



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-02
 Client ID: DE-30E-10102011
 Matrix: Soil
 Workgroup Number: WG379202
 Collect Date: 10/10/2011 13:17
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: EDL
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 10/17/2011 07:26
 Cal Date: 10/17/2011 09:49
 Run Date: 10/17/2011 12:43
 File ID: T2.101711.124343
 Percent Solid: 82.7

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	73.8		4.62	2.31
Cadmium, Total	7440-43-9	3.22		0.462	0.231



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-03
 Client ID: DE-30C-10102011
 Matrix: Soil
 Workgroup Number: WG379202
 Collect Date: 10/10/2011 13:19
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: EDL
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 10/17/2011 07:26
 Cal Date: 10/17/2011 09:49
 Run Date: 10/17/2011 12:46
 File ID: T2.101711.124658
 Percent Solid: 87.5

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	99.9		4.19	2.10
Cadmium, Total	7440-43-9	1.63		0.419	0.210



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-04
 Client ID: DE-30D-10102011
 Matrix: Soil
 Workgroup Number: WG379202
 Collect Date: 10/10/2011 13:22
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: EDL
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 10/17/2011 07:27
 Cal Date: 10/17/2011 09:49
 Run Date: 10/17/2011 12:50
 File ID: T2.101711.125006
 Percent Solid: 84.1

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	122		4.46	2.23
Cadmium, Total	7440-43-9	1.10		0.446	0.223



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-05
 Client ID: DE-30E-10102011
 Matrix: Soil
 Workgroup Number: WG379202
 Collect Date: 10/10/2011 13:25
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: EDL
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 10/17/2011 07:28
 Cal Date: 10/17/2011 09:49
 Run Date: 10/17/2011 12:53
 File ID: T2.101711.125320
 Percent Solid: 89.8

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	38.6		4.04	2.02
Cadmium, Total	7440-43-9	0.361	J	0.404	0.202

J Estimated value; the analyte concentration was less than the RL/LOQ.



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-06
 Client ID: DE-30F-10102011
 Matrix: Soil
 Workgroup Number: WG379202
 Collect Date: 10/10/2011 13:27
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: EDL
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 10/17/2011 07:28
 Cal Date: 10/17/2011 09:49
 Run Date: 10/17/2011 13:12
 File ID: T2.101711.131254
 Percent Solid: 95.5

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	16.0		3.83	1.92
Cadmium, Total	7440-43-9	0.801		0.383	0.192



Report Number: L11100434
 Report Date : November 8, 2011

Sample Number: L11100434-07	PrePrep Method: NONE	Instrument: ICP-THERMO2
Client ID: DE-30G-10102011	Prep Method: 3051A	Prep Date: 10/17/2011 07:29
Matrix: Soil	Analytical Method: 6010B	Cal Date: 10/17/2011 09:49
Workgroup Number: WG379202	Analyst: EDL	Run Date: 10/17/2011 13:16
Collect Date: 10/10/2011 13:35	Dilution: 1	File ID: T2.101711.131616
Sample Tag: 01	Units: mg/kg	Percent Solid: 93.2

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	2.77	J	3.92	1.96
Cadmium, Total	7440-43-9	1.04		0.392	0.196

J Estimated value; the analyte concentration was less than the RL/LOQ.



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-08
 Client ID: DE-31A-10102011
 Matrix: Soil
 Workgroup Number: WG379202
 Collect Date: 10/10/2011 13:57
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: EDL
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 10/17/2011 07:30
 Cal Date: 10/17/2011 09:49
 Run Date: 10/17/2011 13:19
 File ID: T2.101711.131936
 Percent Solid: 65.1

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	137		5.79	2.89
Cadmium, Total	7440-43-9	6.79		0.579	0.289



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-09
 Client ID: DE-31B-10102011
 Matrix: Soil
 Workgroup Number: WG379202
 Collect Date: 10/10/2011 13:59
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: EDL
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 10/17/2011 07:31
 Cal Date: 10/17/2011 09:49
 Run Date: 10/17/2011 13:23
 File ID: T2.101711.132308
 Percent Solid: 80.7

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	86.4		4.43	2.21
Cadmium, Total	7440-43-9	1.30		0.443	0.221



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-10
 Client ID: DE-31C-10102011
 Matrix: Soil
 Workgroup Number: WG379202
 Collect Date: 10/10/2011 14:01
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: EDL
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 10/17/2011 07:32
 Cal Date: 10/17/2011 09:49
 Run Date: 10/17/2011 13:26
 File ID: T2.101711.132615
 Percent Solid: 91.2

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	31.2		3.68	1.84
Cadmium, Total	7440-43-9	0.443		0.368	0.184



Report Number: L11100434
 Report Date : November 8, 2011

Sample Number: L11100434-11	PrePrep Method: NONE	Instrument: ICP-THERMO2
Client ID: DE-31D-10102011	Prep Method: 3051A	Prep Date: 10/17/2011 07:32
Matrix: Soil	Analytical Method: 6010B	Cal Date: 10/17/2011 09:49
Workgroup Number: WG379202	Analyst: EDL	Run Date: 10/17/2011 13:29
Collect Date: 10/10/2011 14:03	Dilution: 1	File ID: T2.101711.132932
Sample Tag: 01	Units: mg/kg	Percent Solid: 94.3

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	11.2		3.76	1.88
Cadmium, Total	7440-43-9	0.505		0.376	0.188



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-12
 Client ID: DE-31E-10102011
 Matrix: Soil
 Workgroup Number: WG379202
 Collect Date: 10/10/2011 14:05
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: EDL
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 10/17/2011 07:33
 Cal Date: 10/17/2011 09:49
 Run Date: 10/17/2011 13:32
 File ID: T2.101711.133248
 Percent Solid: 96.9

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	4.52		3.56	1.78
Cadmium, Total	7440-43-9	0.987		0.356	0.178



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-13
 Client ID: DE-31F-10102011
 Matrix: Soil
 Workgroup Number: WG379202
 Collect Date: 10/10/2011 14:07
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: EDL
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 10/17/2011 07:34
 Cal Date: 10/17/2011 09:49
 Run Date: 10/17/2011 13:36
 File ID: T2.101711.133605
 Percent Solid: 97.4

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	1.95	J	3.67	1.84
Cadmium, Total	7440-43-9	0.231	J	0.367	0.184

J Estimated value; the analyte concentration was less than the RL/LOQ.



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-14
 Client ID: DE-31G-10102011
 Matrix: Soil
 Workgroup Number: WG379202
 Collect Date: 10/10/2011 14:20
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: EDL
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 10/17/2011 07:35
 Cal Date: 10/17/2011 09:49
 Run Date: 10/17/2011 13:39
 File ID: T2.101711.133923
 Percent Solid: 94.8

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	2.51	J	3.93	1.96
Cadmium, Total	7440-43-9	22.8		0.393	0.196

J Estimated value; the analyte concentration was less than the RL/LOQ.



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-15
 Client ID: DE-31G-10102011MS
 Matrix: Soil
 Workgroup Number: WG379202
 Collect Date: 10/10/2011 14:20
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: EDL
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 10/17/2011 07:20
 Cal Date: 10/17/2011 09:49
 Run Date: 10/17/2011 13:42
 File ID: T2.101711.134239
 Percent Solid: 94.8

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	9.42		3.93	1.96
Cadmium, Total	7440-43-9	9.85		0.393	0.196



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-16
 Client ID: DE-31G-10102011MSD
 Matrix: Soil
 Workgroup Number: WG379202
 Collect Date: 10/10/2011 14:20
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: EDL
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 10/17/2011 07:20
 Cal Date: 10/17/2011 09:49
 Run Date: 10/17/2011 13:52
 File ID: T2.101711.135242
 Percent Solid: 94.8

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	9.60		3.93	1.96
Cadmium, Total	7440-43-9	7.47		0.393	0.196



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-17
 Client ID: DE-32A-10102011
 Matrix: Soil
 Workgroup Number: WG379202
 Collect Date: 10/10/2011 14:34
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: EDL
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 10/17/2011 07:38
 Cal Date: 10/17/2011 09:49
 Run Date: 10/17/2011 13:55
 File ID: T2.101711.135556
 Percent Solid: 70.3

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	66.7		5.28	2.64
Cadmium, Total	7440-43-9	8.87		0.528	0.264



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-18
 Client ID: DE-32E-10102011
 Matrix: Soil
 Workgroup Number: WG379202
 Collect Date: 10/10/2011 14:36
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: EDL
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 10/17/2011 07:39
 Cal Date: 10/17/2011 09:49
 Run Date: 10/17/2011 13:59
 File ID: T2.101711.135928
 Percent Solid: 76.5

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	43.8		4.95	2.48
Cadmium, Total	7440-43-9	7.80		0.495	0.248



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-19
 Client ID: DE-32C-10102011
 Matrix: Soil
 Workgroup Number: WG379620
 Collect Date: 10/10/2011 14:38
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: PDM
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO1
 Prep Date: 10/17/2011 09:59
 Cal Date: 10/26/2011 09:01
 Run Date: 10/27/2011 02:14
 File ID: T1.102711.021433
 Percent Solid: 87.6

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	13.0		4.17	2.08
Cadmium, Total	7440-43-9	1.77		0.417	0.208



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-20
 Client ID: DE-32D-10102011
 Matrix: Soil
 Workgroup Number: WG379981
 Collect Date: 10/10/2011 14:41
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: PDM
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO1
 Prep Date: 10/17/2011 11:18
 Cal Date: 10/24/2011 08:53
 Run Date: 10/25/2011 02:24
 File ID: T1.102511.022442
 Percent Solid: 89.7

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	11.7		3.96	1.98
Cadmium, Total	7440-43-9	1.33		0.396	0.198



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-21
 Client ID: DE-32D-10102011MS
 Matrix: Soil
 Workgroup Number: WG379981
 Collect Date: 10/10/2011 14:41
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: PDM
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO1
 Prep Date: 10/17/2011 11:14
 Cal Date: 10/24/2011 08:53
 Run Date: 10/25/2011 02:28
 File ID: T1.102511.022823
 Percent Solid: 89.7

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	18.1		3.96	1.98
Cadmium, Total	7440-43-9	2.19		0.396	0.198



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-22
 Client ID: DE-32D-10102011MSD
 Matrix: Soil
 Workgroup Number: WG379981
 Collect Date: 10/10/2011 14:41
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: PDM
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO1
 Prep Date: 10/17/2011 11:14
 Cal Date: 10/24/2011 08:53
 Run Date: 10/25/2011 02:32
 File ID: T1.102511.023200
 Percent Solid: 89.7

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	17.3		3.96	1.98
Cadmium, Total	7440-43-9	1.98		0.396	0.198



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-23
 Client ID: DE-32E-10102011
 Matrix: Soil
 Workgroup Number: WG379620
 Collect Date: 10/10/2011 14:45
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: PDM
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO1
 Prep Date: 10/17/2011 09:59
 Cal Date: 10/26/2011 09:01
 Run Date: 10/27/2011 02:29
 File ID: T1.102711.022932
 Percent Solid: 93.0

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	6.71		4.05	2.03
Cadmium, Total	7440-43-9	1.17		0.405	0.203



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-24
 Client ID: DE-33A-10102011
 Matrix: Soil
 Workgroup Number: WG379620
 Collect Date: 10/10/2011 15:32
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: PDM
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO1
 Prep Date: 10/17/2011 09:59
 Cal Date: 10/26/2011 09:01
 Run Date: 10/27/2011 02:33
 File ID: T1.102711.023321
 Percent Solid: 65.5

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	19.3		5.60	2.80
Cadmium, Total	7440-43-9	2.52		0.560	0.280



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-25
 Client ID: DE-33E-10102011
 Matrix: Soil
 Workgroup Number: WG379620
 Collect Date: 10/10/2011 15:35
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: PDM
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO1
 Prep Date: 10/17/2011 09:59
 Cal Date: 10/26/2011 09:01
 Run Date: 10/27/2011 02:37
 File ID: T1.102711.023709
 Percent Solid: 86.8

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	43.5		4.43	2.22
Cadmium, Total	7440-43-9	1.71		0.443	0.222



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-26
 Client ID: DE-33C-10102011
 Matrix: Soil
 Workgroup Number: WG379620
 Collect Date: 10/10/2011 15:37
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: PDM
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO1
 Prep Date: 10/17/2011 09:59
 Cal Date: 10/26/2011 09:01
 Run Date: 10/27/2011 02:40
 File ID: T1.102711.024056
 Percent Solid: 92.9

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	10.4		3.97	1.99
Cadmium, Total	7440-43-9	1.34		0.397	0.199



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-27
 Client ID: DE-33D-10102011
 Matrix: Soil
 Workgroup Number: WG379981
 Collect Date: 10/10/2011 15:40
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: PDM
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO1
 Prep Date: 10/17/2011 11:20
 Cal Date: 10/24/2011 08:53
 Run Date: 10/25/2011 02:35
 File ID: T1.102511.023538
 Percent Solid: 94.5

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	4.66		3.80	1.90
Cadmium, Total	7440-43-9	0.492		0.380	0.190



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-28
 Client ID: DE-33E-10102011
 Matrix: Soil
 Workgroup Number: WG379981
 Collect Date: 10/10/2011 15:42
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: PDM
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO1
 Prep Date: 10/17/2011 11:20
 Cal Date: 10/24/2011 08:53
 Run Date: 10/25/2011 02:39
 File ID: T1.102511.023920
 Percent Solid: 98.2

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2		U	3.80	1.90
Cadmium, Total	7440-43-9	0.566		0.380	0.190

U Not detected at or above adjusted sample detection limit.



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-29	PrePrep Method: NONE	Instrument: ICP-THERMO1
Client ID: DE-33F-10102011	Prep Method: 3051A	Prep Date: 10/17/2011 11:21
Matrix: Soil	Analytical Method: 6010B	Cal Date: 10/24/2011 08:53
Workgroup Number: WG379981	Analyst: PDM	Run Date: 10/25/2011 03:01
Collect Date: 10/10/2011 15:45	Dilution: 1	File ID: T1.102511.030125
Sample Tag: 01	Units: mg/kg	Percent Solid: 97.6

Analyte	CAS. Number	Result	Qual	RL	MDL
Cadmium, Total	7440-43-9	0.354	J	0.387	0.194

J Estimated value; the analyte concentration was less than the RL/LOQ.



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-29	PrePrep Method: NONE	Instrument: ICP-THERMO1
Client ID: DE-33F-10102011	Prep Method: 3051A	Prep Date: 10/17/2011 11:21
Matrix: Soil	Analytical Method: 6010B	Cal Date: 10/31/2011 09:17
Workgroup Number: WG379981	Analyst: PDM	Run Date: 10/31/2011 09:44
Collect Date: 10/10/2011 15:45	Dilution: 1	File ID: T1.103111.094448
Sample Tag: 02	Units: mg/kg	Percent Solid: 97.6

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	2.77	J	3.87	1.94

J Estimated value; the analyte concentration was less than the RL/LOQ.



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-30	PrePrep Method: NONE	Instrument: ICP-THERMO1
Client ID: DE-33G-10102011	Prep Method: 3051A	Prep Date: 10/17/2011 11:22
Matrix: Soil	Analytical Method: 6010B	Cal Date: 10/24/2011 08:53
Workgroup Number: WG379981	Analyst: PDM	Run Date: 10/25/2011 03:05
Collect Date: 10/10/2011 15:53	Dilution: 1	File ID: T1.102511.030515
Sample Tag: 01	Units: mg/kg	Percent Solid: 93.3

Analyte	CAS. Number	Result	Qual	RL	MDL
Cadmium, Total	7440-43-9	0.998		0.406	0.203



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-30	PrePrep Method: NONE	Instrument: ICP-THERMO1
Client ID: DE-33G-10102011	Prep Method: 3051A	Prep Date: 10/17/2011 11:22
Matrix: Soil	Analytical Method: 6010B	Cal Date: 10/31/2011 09:17
Workgroup Number: WG379981	Analyst: PDM	Run Date: 10/31/2011 09:48
Collect Date: 10/10/2011 15:53	Dilution: 1	File ID: T1.103111.094840
Sample Tag: 02	Units: mg/kg	Percent Solid: 93.3

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	6.35		4.06	2.03



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-31	PrePrep Method: NONE	Instrument: ICP-THERMO1
Client ID: DUP-SOIL-10102011-01	Prep Method: 3051A	Prep Date: 10/17/2011 11:23
Matrix: Soil	Analytical Method: 6010B	Cal Date: 10/24/2011 08:53
Workgroup Number: WG379981	Analyst: PDM	Run Date: 10/25/2011 03:08
Collect Date: 10/10/2011 08:00	Dilution: 1	File ID: T1.102511.030856
Sample Tag: 01	Units: mg/kg	Percent Solid: 97.4

Analyte	CAS. Number	Result	Qual	RL	MDL
Cadmium, Total	7440-43-9	1.52		0.356	0.178



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-31	PrePrep Method: NONE	Instrument: ICP-THERMO1
Client ID: DUP-SOIL-10102011-01	Prep Method: 3051A	Prep Date: 10/17/2011 11:23
Matrix: Soil	Analytical Method: 6010B	Cal Date: 10/31/2011 09:17
Workgroup Number: WG379981	Analyst: PDM	Run Date: 10/31/2011 09:52
Collect Date: 10/10/2011 08:00	Dilution: 1	File ID: T1.103111.095231
Sample Tag: 02	Units: mg/kg	Percent Solid: 97.4

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	7.26		3.56	1.78



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-32	PrePrep Method: NONE	Instrument: ICP-THERMO1
Client ID: DUP-SOIL-10102011-02	Prep Method: 3051A	Prep Date: 10/17/2011 11:23
Matrix: Soil	Analytical Method: 6010B	Cal Date: 10/24/2011 08:53
Workgroup Number: WG379981	Analyst: PDM	Run Date: 10/25/2011 03:12
Collect Date: 10/10/2011 08:05	Dilution: 1	File ID: T1.102511.031240
Sample Tag: 01	Units: mg/kg	Percent Solid: 92.1

Analyte	CAS. Number	Result	Qual	RL	MDL
Cadmium, Total	7440-43-9	0.996		0.398	0.199



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-32	PrePrep Method: NONE	Instrument: ICP-THERMO1
Client ID: DUP-SOIL-10102011-02	Prep Method: 3051A	Prep Date: 10/17/2011 11:23
Matrix: Soil	Analytical Method: 6010B	Cal Date: 10/31/2011 09:17
Workgroup Number: WG379981	Analyst: PDM	Run Date: 10/31/2011 09:56
Collect Date: 10/10/2011 08:05	Dilution: 1	File ID: T1.103111.095621
Sample Tag: 02	Units: mg/kg	Percent Solid: 92.1

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	9.57		3.98	1.99



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-33	PrePrep Method: NONE	Instrument: ICP-THERMO1
Client ID: DE-29A-10112011	Prep Method: 3051A	Prep Date: 10/17/2011 11:23
Matrix: Soil	Analytical Method: 6010B	Cal Date: 10/24/2011 08:53
Workgroup Number: WG379981	Analyst: PDM	Run Date: 10/25/2011 03:16
Collect Date: 10/11/2011 08:38	Dilution: 1	File ID: T1.102511.031622
Sample Tag: 01	Units: mg/kg	Percent Solid: 70.8

Analyte	CAS. Number	Result	Qual	RL	MDL
Cadmium, Total	7440-43-9	19.3		0.517	0.258



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-33	PrePrep Method: NONE	Instrument: ICP-THERMO1
Client ID: DE-29A-10112011	Prep Method: 3051A	Prep Date: 10/17/2011 11:23
Matrix: Soil	Analytical Method: 6010B	Cal Date: 10/31/2011 09:17
Workgroup Number: WG379981	Analyst: PDM	Run Date: 10/31/2011 10:00
Collect Date: 10/11/2011 08:38	Dilution: 1	File ID: T1.103111.100011
Sample Tag: 02	Units: mg/kg	Percent Solid: 70.8

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	72.9		5.17	2.58



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-34	PrePrep Method: NONE	Instrument: ICP-THERMO1
Client ID: DE-29E-10112011	Prep Method: 3051A	Prep Date: 10/17/2011 11:24
Matrix: Soil	Analytical Method: 6010B	Cal Date: 10/24/2011 08:53
Workgroup Number: WG379981	Analyst: PDM	Run Date: 10/25/2011 03:19
Collect Date: 10/11/2011 08:40	Dilution: 1	File ID: T1.102511.031953
Sample Tag: 01	Units: mg/kg	Percent Solid: 80.9

Analyte	CAS. Number	Result	Qual	RL	MDL
Cadmium, Total	7440-43-9	14.7		0.464	0.232



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-34	PrePrep Method: NONE	Instrument: ICP-THERMO1
Client ID: DE-29E-10112011	Prep Method: 3051A	Prep Date: 10/17/2011 11:24
Matrix: Soil	Analytical Method: 6010B	Cal Date: 10/31/2011 09:17
Workgroup Number: WG379981	Analyst: PDM	Run Date: 10/31/2011 10:03
Collect Date: 10/11/2011 08:40	Dilution: 1	File ID: T1.103111.100349
Sample Tag: 02	Units: mg/kg	Percent Solid: 80.9

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	34.8		4.64	2.32



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-35	PrePrep Method: NONE	Instrument: ICP-THERMO1
Client ID: DE-29C-10112011	Prep Method: 3051A	Prep Date: 10/17/2011 11:25
Matrix: Soil	Analytical Method: 6010B	Cal Date: 10/24/2011 08:53
Workgroup Number: WG379981	Analyst: PDM	Run Date: 10/25/2011 03:23
Collect Date: 10/11/2011 08:42	Dilution: 1	File ID: T1.102511.032326
Sample Tag: 01	Units: mg/kg	Percent Solid: 89.7

Analyte	CAS. Number	Result	Qual	RL	MDL
Cadmium, Total	7440-43-9	4.35		0.422	0.211



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-35	PrePrep Method: NONE	Instrument: ICP-THERMO1
Client ID: DE-29C-10112011	Prep Method: 3051A	Prep Date: 10/17/2011 11:25
Matrix: Soil	Analytical Method: 6010B	Cal Date: 10/31/2011 09:17
Workgroup Number: WG379981	Analyst: PDM	Run Date: 10/31/2011 10:07
Collect Date: 10/11/2011 08:42	Dilution: 1	File ID: T1.103111.100733
Sample Tag: 02	Units: mg/kg	Percent Solid: 89.7

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	34.8		4.22	2.11



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-36
 Client ID: DE-29D-10112011
 Matrix: Soil
 Workgroup Number: WG379981
 Collect Date: 10/11/2011 08:45
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: PDM
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO1
 Prep Date: 10/17/2011 11:25
 Cal Date: 10/24/2011 08:53
 Run Date: 10/25/2011 03:27
 File ID: T1.102511.032708
 Percent Solid: 92.3

Analyte	CAS. Number	Result	Qual	RL	MDL
Cadmium, Total	7440-43-9	0.555		0.407	0.204



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-36	PrePrep Method: NONE	Instrument: ICP-THERMO1
Client ID: DE-29D-10112011	Prep Method: 3051A	Prep Date: 10/17/2011 11:25
Matrix: Soil	Analytical Method: 6010B	Cal Date: 10/31/2011 09:17
Workgroup Number: WG379981	Analyst: PDM	Run Date: 10/31/2011 10:11
Collect Date: 10/11/2011 08:45	Dilution: 1	File ID: T1.103111.101123
Sample Tag: 02	Units: mg/kg	Percent Solid: 92.3

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	7.76		4.07	2.04



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-37	PrePrep Method: NONE	Instrument: ICP-THERMO2
Client ID: DE-29E-10112011	Prep Method: 3051A	Prep Date: 10/18/2011 07:40
Matrix: Soil	Analytical Method: 6010B	Cal Date: 10/18/2011 09:56
Workgroup Number: WG379347	Analyst: EDL	Run Date: 10/18/2011 12:08
Collect Date: 10/11/2011 08:47	Dilution: 1	File ID: T2.101811.120819
Sample Tag: 01	Units: mg/kg	Percent Solid: 94.6

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2		U	3.77	1.88
Cadmium, Total	7440-43-9		U	0.377	0.188

U Not detected at or above adjusted sample detection limit.



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-38
 Client ID: DE-29E-10112011MS
 Matrix: Soil
 Workgroup Number: WG379347
 Collect Date: 10/11/2011 08:47
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: EDL
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 10/18/2011 07:24
 Cal Date: 10/18/2011 09:56
 Run Date: 10/18/2011 12:11
 File ID: T2.101811.121139
 Percent Solid: 94.6

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	8.97		3.77	1.88
Cadmium, Total	7440-43-9	0.982		0.377	0.188



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-39
 Client ID: DE-29E-10112011MSD
 Matrix: Soil
 Workgroup Number: WG379347
 Collect Date: 10/11/2011 08:47
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: EDL
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 10/18/2011 07:24
 Cal Date: 10/18/2011 09:56
 Run Date: 10/18/2011 12:14
 File ID: T2.101811.121454
 Percent Solid: 94.6

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	9.10		3.77	1.88
Cadmium, Total	7440-43-9	0.976		0.377	0.188



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-40	PrePrep Method: NONE	Instrument: ICP-THERMO1
Client ID: DE-29F-10112011	Prep Method: 3051A	Prep Date: 10/17/2011 11:25
Matrix: Soil	Analytical Method: 6010B	Cal Date: 10/24/2011 08:53
Workgroup Number: WG379981	Analyst: PDM	Run Date: 10/25/2011 03:30
Collect Date: 10/11/2011 08:50	Dilution: 1	File ID: T1.102511.033051
Sample Tag: 01	Units: mg/kg	Percent Solid: 96.5

Analyte	CAS. Number	Result	Qual	RL	MDL
Cadmium, Total	7440-43-9	0.187	J	0.364	0.182

J Estimated value; the analyte concentration was less than the RL/LOQ.



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-40	PrePrep Method: NONE	Instrument: ICP-THERMO1
Client ID: DE-29F-10112011	Prep Method: 3051A	Prep Date: 10/17/2011 11:25
Matrix: Soil	Analytical Method: 6010B	Cal Date: 10/31/2011 09:17
Workgroup Number: WG379981	Analyst: PDM	Run Date: 10/31/2011 10:15
Collect Date: 10/11/2011 08:50	Dilution: 1	File ID: T1.103111.101514
Sample Tag: 02	Units: mg/kg	Percent Solid: 96.5

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	2.63	J	3.64	1.82

J Estimated value; the analyte concentration was less than the RL/LOQ.



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-41	PrePrep Method: NONE	Instrument: ICP-THERMO1
Client ID: DE-29G-10112011	Prep Method: 3051A	Prep Date: 10/17/2011 11:26
Matrix: Soil	Analytical Method: 6010B	Cal Date: 10/24/2011 08:53
Workgroup Number: WG379981	Analyst: PDM	Run Date: 10/25/2011 03:34
Collect Date: 10/11/2011 08:52	Dilution: 1	File ID: T1.102511.033440
Sample Tag: 01	Units: mg/kg	Percent Solid: 96.2

Analyte	CAS. Number	Result	Qual	RL	MDL
Cadmium, Total	7440-43-9	1.02		0.375	0.187



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-41	PrePrep Method: NONE	Instrument: ICP-THERMO1
Client ID: DE-29G-10112011	Prep Method: 3051A	Prep Date: 10/17/2011 11:26
Matrix: Soil	Analytical Method: 6010B	Cal Date: 10/31/2011 09:17
Workgroup Number: WG379981	Analyst: PDM	Run Date: 10/31/2011 10:19
Collect Date: 10/11/2011 08:52	Dilution: 1	File ID: T1.103111.101905
Sample Tag: 02	Units: mg/kg	Percent Solid: 96.2

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	2.85	J	3.75	1.87

J Estimated value; the analyte concentration was less than the RL/LOQ.



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-42	PrePrep Method: NONE	Instrument: ICP-THERMO1
Client ID: DE-28A-10112011	Prep Method: 3051A	Prep Date: 10/17/2011 11:26
Matrix: Soil	Analytical Method: 6010B	Cal Date: 10/24/2011 08:53
Workgroup Number: WG379981	Analyst: PDM	Run Date: 10/25/2011 03:45
Collect Date: 10/11/2011 09:16	Dilution: 1	File ID: T1.102511.034535
Sample Tag: 01	Units: mg/kg	Percent Solid: 81.0

Analyte	CAS. Number	Result	Qual	RL	MDL
Cadmium, Total	7440-43-9	0.974		0.434	0.217



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-42
 Client ID: DE-28A-10112011
 Matrix: Soil
 Workgroup Number: WG379981
 Collect Date: 10/11/2011 09:16
 Sample Tag: 02

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: PDM
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO1
 Prep Date: 10/17/2011 11:26
 Cal Date: 10/31/2011 09:17
 Run Date: 10/31/2011 10:30
 File ID: T1.103111.103026
 Percent Solid: 81.0

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	9.84		4.34	2.17



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-43	PrePrep Method: NONE	Instrument: ICP-THERMO1
Client ID: DE-28E-10112011	Prep Method: 3051A	Prep Date: 10/17/2011 11:27
Matrix: Soil	Analytical Method: 6010B	Cal Date: 10/24/2011 08:53
Workgroup Number: WG379981	Analyst: PDM	Run Date: 10/25/2011 03:49
Collect Date: 10/11/2011 09:18	Dilution: 1	File ID: T1.102511.034915
Sample Tag: 01	Units: mg/kg	Percent Solid: 73.0

Analyte	CAS. Number	Result	Qual	RL	MDL
Cadmium, Total	7440-43-9	1.28		0.498	0.249



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-43	PrePrep Method: NONE	Instrument: ICP-THERMO1
Client ID: DE-28E-10112011	Prep Method: 3051A	Prep Date: 10/17/2011 11:27
Matrix: Soil	Analytical Method: 6010B	Cal Date: 10/31/2011 09:17
Workgroup Number: WG379981	Analyst: PDM	Run Date: 10/31/2011 10:34
Collect Date: 10/11/2011 09:18	Dilution: 1	File ID: T1.103111.103413
Sample Tag: 02	Units: mg/kg	Percent Solid: 73.0

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	13.0		4.98	2.49



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-44	PrePrep Method: NONE	Instrument: ICP-THERMO1
Client ID: DE-28C-10112011	Prep Method: 3051A	Prep Date: 10/17/2011 11:27
Matrix: Soil	Analytical Method: 6010B	Cal Date: 10/24/2011 08:53
Workgroup Number: WG379981	Analyst: PDM	Run Date: 10/25/2011 03:52
Collect Date: 10/11/2011 09:20	Dilution: 1	File ID: T1.102511.035256
Sample Tag: 01	Units: mg/kg	Percent Solid: 73.3

Analyte	CAS. Number	Result	Qual	RL	MDL
Cadmium, Total	7440-43-9	0.446	J	0.496	0.248

J Estimated value; the analyte concentration was less than the RL/LOQ.



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-44	PrePrep Method: NONE	Instrument: ICP-THERMO1
Client ID: DE-28C-10112011	Prep Method: 3051A	Prep Date: 10/17/2011 11:27
Matrix: Soil	Analytical Method: 6010B	Cal Date: 10/31/2011 09:17
Workgroup Number: WG379981	Analyst: PDM	Run Date: 10/31/2011 10:38
Collect Date: 10/11/2011 09:20	Dilution: 1	File ID: T1.103111.103803
Sample Tag: 02	Units: mg/kg	Percent Solid: 73.3

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	12.7		4.96	2.48



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-45	PrePrep Method: NONE	Instrument: ICP-THERMO1
Client ID: DE-28D-10112011	Prep Method: 3051A	Prep Date: 10/17/2011 11:28
Matrix: Soil	Analytical Method: 6010B	Cal Date: 10/24/2011 08:53
Workgroup Number: WG379981	Analyst: PDM	Run Date: 10/25/2011 03:56
Collect Date: 10/11/2011 09:23	Dilution: 1	File ID: T1.102511.035629
Sample Tag: 01	Units: mg/kg	Percent Solid: 79.2

Analyte	CAS. Number	Result	Qual	RL	MDL
Cadmium, Total	7440-43-9		U	0.422	0.211

U Not detected at or above adjusted sample detection limit.



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-45	PrePrep Method: NONE	Instrument: ICP-THERMO1
Client ID: DE-28D-10112011	Prep Method: 3051A	Prep Date: 10/17/2011 11:28
Matrix: Soil	Analytical Method: 6010B	Cal Date: 10/31/2011 09:17
Workgroup Number: WG379981	Analyst: PDM	Run Date: 10/31/2011 10:41
Collect Date: 10/11/2011 09:23	Dilution: 1	File ID: T1.103111.104145
Sample Tag: 02	Units: mg/kg	Percent Solid: 79.2

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	8.52		4.22	2.11



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-46	PrePrep Method: NONE	Instrument: ICP-THERMO1
Client ID: DE-28E-10112011	Prep Method: 3051A	Prep Date: 10/17/2011 11:28
Matrix: Soil	Analytical Method: 6010B	Cal Date: 10/24/2011 08:53
Workgroup Number: WG379981	Analyst: PDM	Run Date: 10/25/2011 04:00
Collect Date: 10/11/2011 09:25	Dilution: 1	File ID: T1.102511.040018
Sample Tag: 01	Units: mg/kg	Percent Solid: 78.1

Analyte	CAS. Number	Result	Qual	RL	MDL
Cadmium, Total	7440-43-9		U	0.481	0.240

U Not detected at or above adjusted sample detection limit.



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-46	PrePrep Method: NONE	Instrument: ICP-THERMO1
Client ID: DE-28E-10112011	Prep Method: 3051A	Prep Date: 10/17/2011 11:28
Matrix: Soil	Analytical Method: 6010B	Cal Date: 10/31/2011 09:17
Workgroup Number: WG379981	Analyst: PDM	Run Date: 10/31/2011 10:45
Collect Date: 10/11/2011 09:25	Dilution: 1	File ID: T1.103111.104535
Sample Tag: 02	Units: mg/kg	Percent Solid: 78.1

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	5.87		4.81	2.40



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-47	PrePrep Method: NONE	Instrument: ICP-THERMO1
Client ID: DE-28F-10112011	Prep Method: 3051A	Prep Date: 10/17/2011 11:29
Matrix: Soil	Analytical Method: 6010B	Cal Date: 10/24/2011 08:53
Workgroup Number: WG379981	Analyst: PDM	Run Date: 10/25/2011 04:04
Collect Date: 10/11/2011 09:28	Dilution: 1	File ID: T1.102511.040407
Sample Tag: 01	Units: mg/kg	Percent Solid: 80.8

Analyte	CAS. Number	Result	Qual	RL	MDL
Cadmium, Total	7440-43-9		U	0.445	0.222

U Not detected at or above adjusted sample detection limit.



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-47	PrePrep Method: NONE	Instrument: ICP-THERMO1
Client ID: DE-28F-10112011	Prep Method: 3051A	Prep Date: 10/17/2011 11:29
Matrix: Soil	Analytical Method: 6010B	Cal Date: 10/31/2011 09:17
Workgroup Number: WG379981	Analyst: PDM	Run Date: 10/31/2011 10:49
Collect Date: 10/11/2011 09:28	Dilution: 1	File ID: T1.103111.104925
Sample Tag: 02	Units: mg/kg	Percent Solid: 80.8

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	4.46		4.45	2.22



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-48	PrePrep Method: NONE	Instrument: ICP-THERMO1
Client ID: DE-28G-10112011	Prep Method: 3051A	Prep Date: 10/17/2011 11:29
Matrix: Soil	Analytical Method: 6010B	Cal Date: 10/24/2011 08:53
Workgroup Number: WG379981	Analyst: PDM	Run Date: 10/25/2011 04:07
Collect Date: 10/11/2011 09:33	Dilution: 1	File ID: T1.102511.040749
Sample Tag: 01	Units: mg/kg	Percent Solid: 79.5

Analyte	CAS. Number	Result	Qual	RL	MDL
Cadmium, Total	7440-43-9		U	0.461	0.230

U Not detected at or above adjusted sample detection limit.



Report Number: L11100434
 Report Date : November 8, 2011

Sample Number: L11100434-48	PrePrep Method: NONE	Instrument: ICP-THERMO1
Client ID: DE-28G-10112011	Prep Method: 3051A	Prep Date: 10/17/2011 11:29
Matrix: Soil	Analytical Method: 6010B	Cal Date: 10/31/2011 09:17
Workgroup Number: WG379981	Analyst: PDM	Run Date: 10/31/2011 10:53
Collect Date: 10/11/2011 09:33	Dilution: 1	File ID: T1.103111.105318
Sample Tag: 02	Units: mg/kg	Percent Solid: 79.5

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	8.42		4.61	2.30



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-49	PrePrep Method: NONE	Instrument: ICP-THERMO2
Client ID: DE-27A-10112011	Prep Method: 3051A	Prep Date: 10/18/2011 07:43
Matrix: Soil	Analytical Method: 6010B	Cal Date: 10/18/2011 09:56
Workgroup Number: WG379347	Analyst: EDL	Run Date: 10/18/2011 12:18
Collect Date: 10/11/2011 09:52	Dilution: 1	File ID: T2.101811.121809
Sample Tag: 01	Units: mg/kg	Percent Solid: 72.9

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	9.54		5.05	2.52
Cadmium, Total	7440-43-9	0.639		0.505	0.252



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-50
 Client ID: DE-27B-10112011
 Matrix: Soil
 Workgroup Number: WG379347
 Collect Date: 10/11/2011 09:54
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: EDL
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 10/18/2011 07:43
 Cal Date: 10/18/2011 09:56
 Run Date: 10/18/2011 12:21
 File ID: T2.101811.122116
 Percent Solid: 79.3

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	9.83		4.68	2.34
Cadmium, Total	7440-43-9	0.631		0.468	0.234



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-51	PrePrep Method: NONE	Instrument: ICP-THERMO2
Client ID: DE-27C-10112011	Prep Method: 3051A	Prep Date: 10/18/2011 07:44
Matrix: Soil	Analytical Method: 6010B	Cal Date: 10/18/2011 09:56
Workgroup Number: WG379347	Analyst: EDL	Run Date: 10/18/2011 12:40
Collect Date: 10/11/2011 09:56	Dilution: 1	File ID: T2.101811.124049
Sample Tag: 01	Units: mg/kg	Percent Solid: 87.2

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	22.4		3.84	1.92
Cadmium, Total	7440-43-9	0.358	J	0.384	0.192

J Estimated value; the analyte concentration was less than the RL/LOQ.



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-52	PrePrep Method: NONE	Instrument: ICP-THERMO2
Client ID: DE-27D-10112011	Prep Method: 3051A	Prep Date: 10/18/2011 07:44
Matrix: Soil	Analytical Method: 6010B	Cal Date: 10/18/2011 09:56
Workgroup Number: WG379347	Analyst: EDL	Run Date: 10/18/2011 12:44
Collect Date: 10/11/2011 09:59	Dilution: 1	File ID: T2.101811.124404
Sample Tag: 01	Units: mg/kg	Percent Solid: 87.5

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	5.39		4.21	2.10
Cadmium, Total	7440-43-9		U	0.421	0.210

U Not detected at or above adjusted sample detection limit.



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-53
 Client ID: DE-27E-10112011
 Matrix: Soil
 Workgroup Number: WG379347
 Collect Date: 10/11/2011 10:01
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: EDL
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 10/18/2011 07:45
 Cal Date: 10/18/2011 09:56
 Run Date: 10/18/2011 12:47
 File ID: T2.101811.124727
 Percent Solid: 87.5

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	4.47		4.14	2.07
Cadmium, Total	7440-43-9		U	0.414	0.207

U Not detected at or above adjusted sample detection limit.



Report Number: L11100434
 Report Date : November 8, 2011

Sample Number: L11100434-54	PrePrep Method: NONE	Instrument: ICP-THERMO2
Client ID: DE-27F-10112011	Prep Method: 3051A	Prep Date: 10/18/2011 07:45
Matrix: Soil	Analytical Method: 6010B	Cal Date: 10/18/2011 09:56
Workgroup Number: WG379347	Analyst: EDL	Run Date: 10/18/2011 12:50
Collect Date: 10/11/2011 10:03	Dilution: 1	File ID: T2.101811.125052
Sample Tag: 01	Units: mg/kg	Percent Solid: 89.9

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	5.83		3.96	1.98
Cadmium, Total	7440-43-9		U	0.396	0.198

U Not detected at or above adjusted sample detection limit.



Report Number: L11100434
 Report Date : November 8, 2011

Sample Number: L11100434-55	PrePrep Method: NONE	Instrument: ICP-THERMO2
Client ID: DE-27G-10112011	Prep Method: 3051A	Prep Date: 10/18/2011 07:46
Matrix: Soil	Analytical Method: 6010B	Cal Date: 10/18/2011 09:56
Workgroup Number: WG379347	Analyst: EDL	Run Date: 10/18/2011 12:54
Collect Date: 10/11/2011 10:08	Dilution: 1	File ID: T2.101811.125411
Sample Tag: 01	Units: mg/kg	Percent Solid: 81.9

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	3.91	J	4.08	2.04
Cadmium, Total	7440-43-9		U	0.408	0.204

U Not detected at or above adjusted sample detection limit.
 J Estimated value; the analyte concentration was less than the RL/LOQ.



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-56	PrePrep Method: NONE	Instrument: ICP-THERMO2
Client ID: DUP-SOIL-10112011-01	Prep Method: 3051A	Prep Date: 10/18/2011 07:46
Matrix: Soil	Analytical Method: 6010B	Cal Date: 10/18/2011 09:56
Workgroup Number: WG379347	Analyst: EDL	Run Date: 10/18/2011 12:57
Collect Date: 10/11/2011 08:00	Dilution: 1	File ID: T2.101811.125735
Sample Tag: 01	Units: mg/kg	Percent Solid: 94.7

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	2.87	J	3.61	1.81
Cadmium, Total	7440-43-9	0.961		0.361	0.181

J Estimated value; the analyte concentration was less than the RL/LOQ.



Report Number: L11100434
 Report Date : November 8, 2011

Sample Number: L11100434-57	PrePrep Method: NONE	Instrument: ICP-THERMO2
Client ID: DUP-SOIL-10112011-02	Prep Method: 3051A	Prep Date: 10/18/2011 07:47
Matrix: Soil	Analytical Method: 6010B	Cal Date: 10/18/2011 09:56
Workgroup Number: WG379347	Analyst: EDL	Run Date: 10/18/2011 13:00
Collect Date: 10/11/2011 08:05	Dilution: 1	File ID: T2.101811.130052
Sample Tag: 01	Units: mg/kg	Percent Solid: 89.7

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	15.2		3.92	1.96
Cadmium, Total	7440-43-9	0.362	J	0.392	0.196

J Estimated value; the analyte concentration was less than the RL/LOQ.



2.1.1.2 QC Summary Data

Example 6010 Calculations
Perkin Elmer Optima 4300 DV

1.0 Initial Calibration (ICAL) Parameters

The system performs linear regression from data consisting of a blank and three standards.

2.0 Calculating the concentration (C) of an element in water using data from prep log, run log, and quantitation report (note:the data system performs this calculation automatically when correction factors have been entered):

$$Cx = Cs \times \frac{Vf}{Vi} \times D$$

Where:

Cs = Concentration computed by the data system in ug/mL (ppm)

Vf = Final volume (mL)

Vi = Initial volume (mL)

D = Dilution factor as a multiplier (10X = 10)

Cx = Concentration of element in ug/mL (mg/L)

Example:

0.1

50

50

1

0.1

3.0 Calculating the concentration (C) of an element in soil using data from prep log, run log, and quantitation report (note: the data system performs this calculation automatically when correction factors have been entered):

$$Cx = Cs \times \frac{Vf}{Vi} \times D$$

Where:

Cs = Concentration computed by the data system (mg/L) (ppm)

Vf = Final volume (mL)

Vi = Initial weight (g)

D = Dilution factor as a multiplier (10X = 10)

Cx = Concentration of element in ug/g (mg/kg)

Example:

0.1

50

1

1

5

4.0 Adjusting the concentration to dry weight:

$$Cdry = \frac{Cx \times 100}{Px}$$

Where:

Cx = Concentration calculated as received (wet basis)

Px = Percent solids of sample (%wt)

$Cdry$ = Concentration calculated as dry weight (mg/kg)

Example:

5

80

6.25

Example 6010 Calculations
Thermo Scientific IRIS Advantage

1.0 Initial Calibration (ICAL) Parameters

The system performs linear regression from data consisting of a blank and three standards.

2.0 Calculating the concentration (C) of an element in water using data from prep log, run log, and quantitation report (note:the data system performs this calculation automatically when correction factors have been entered):

$$Cx = Cs \times \frac{Vf}{Vi} \times D$$

Where:

Cs = Concentration computed by the data system in ug/mL (ppm)

Vf = Final volume (mL)

Vi = Initial volume (mL)

D = Dilution factor as a multiplier (10X = 10)

Cx = Concentration of element in ug/mL (mg/L)

Example:

0.1

50

50

1

0.1

3.0 Calculating the concentration (C) of an element in soil using data from prep log, run log, and quantitation report (note: the data system performs this calculation automatically when correction factors have been entered):

$$Cx = Cs \times \frac{Vf}{Vi} \times D$$

Where:

Cs = Concentration computed by the data system (mg/L) (ppm)

Vf = Final volume (mL)

Vi = Initial weight (g)

D = Dilution factor as a multiplier (10X = 10)

Cx = Concentration of element in ug/g (mg/kg)

Example:

0.1

50

1

1

5

4.0 Adjusting the concentration to dry weight:

$$Cdry = \frac{Cx \times 100}{Px}$$

Where:

Cx = Concentration calculated as received (wet basis)

Px = Percent solids of sample (%wt)

$Cdry$ = Concentration calculated as dry weight (mg/kg)

Example:

5

80

6.25

Example 6010 Calculations
Thermo Scientific iCAP 6500

1.0 Initial Calibration (ICAL) Parameters

For a multi-point calibration, the system performs linear regression from data consisting of a blank and four standards.

2.0 Calculating the concentration (C) of an element in water using data from prep log, run log, and quantitation report (note:the data system performs this calculation automatically when correction factors have been entered):

$$Cx = Cs \times \frac{Vf}{Vi} \times D$$

Where:

Cs = Concentration computed by the data system in ug/mL (ppm)

Vf = Final volume (mL)

Vi = Initial volume (mL)

D = Dilution factor as a multiplier (10X = 10)

Cx = Concentration of element in ug/mL (mg/L)

Example:

0.1

50

50

1

0.1

3.0 Calculating the concentration (C) of an element in soil using data from prep log, run log, and quantitation report (note: the data system performs this calculation automatically when correction factors have been entered):

$$Cx = Cs \times \frac{Vf}{Vi} \times D$$

Where:

Cs = Concentration computed by the data system (mg/L) (ppm)

Vf = Final volume (mL)

Vi = Initial weight (g)

D = Dilution factor as a multiplier (10X = 10)

Cx = Concentration of element in ug/g (mg/kg)

Example:

0.1

50

1

1

5

4.0 Adjusting the concentration to dry weight:

$$Cdry = \frac{Cx \times 100}{Px}$$

Where:

Cx = Concentration calculated as received (wet basis)

Px = Percent solids of sample (%wt)

$Cdry$ = Concentration calculated as dry weight (mg/kg)

Example:

5

80

6.25

Microbac Laboratories Inc.
Microwave Digestion Log

Workgroup: WG379213
Analyst: BRG
Spike Analyst: BRG
Run Date: 10/17/2011 11:29
Method: 3051A
Balance: BAL014
Instrument: MW-1

SOP: ME406 Revision 12
Spike Solution: STD47842
Spike Witness: VC
HNO3 Lot #: COA15720
HCL Lot #: COA15709
Digestion Tubes Lot #: COA15719

	SAMPLE #	Type	Matrix	Initial Amount	Final Volume	Initial Vessel Wt	Final Vessel Wt	Spike Amount	Due Date
1	WG379213-02	BLANK	7	1 g	50 mL	176.594 g	176.611 g		
2	WG379213-03	LCS	7	1 g	50 mL	182.299 g	182.32 g	5 mL	
3	WG379213-01	REF	7	1.409 g	50 mL	177.449 g	177.375 g		
4	L11100434-20	RS02	7	1.409 g	50 mL	177.449 g	177.375 g		10/27/11
5	WG379213-04	MS	7	1.409 g	50 mL	184.65 g	184.638 g	5 mL	
6	L11100434-21	MS02	7	1.409 g	50 mL	184.65 g	184.638 g	5 mL	10/27/11
7	WG379213-05	MSD	7	1.409 g	50 mL	183.652 g	183.608 g	5 mL	
8	L11100434-22	SD02	7	1.409 g	50 mL	183.652 g	183.608 g	5 mL	10/27/11
9	L11100434-27	SAMP	7	1.393 g	50 mL	177.746 g	177.69 g		10/27/11
10	L11100434-28	SAMP	7	1.339 g	50 mL	178.534 g	178.418 g		10/27/11
11	L11100434-29	SAMP	7	1.322 g	50 mL	176.287 g	176.218 g		10/27/11
12	L11100434-30	SAMP	7	1.32 g	50 mL	176.804 g	176.468 g		10/27/11
13	L11100434-31	SAMP	7	1.444 g	50 mL	177.554 g	177.366 g		10/27/11
14	L11100434-32	SAMP	7	1.363 g	50 mL	177.834 g	177.661 g		10/27/11
15	L11100434-33	SAMP	7	1.367 g	50 mL	179.158 g	179.064 g		10/27/11
16	L11100434-34	SAMP	7	1.331 g	50 mL	178.082 g	178.106 g		10/27/11
17	L11100434-35	SAMP	7	1.321 g	50 mL	176.255 g	176.152 g		10/27/11
18	L11100434-36	SAMP	7	1.33 g	50 mL	176.987 g	176.946 g		10/27/11
19	L11100434-40	SAMP	7	1.423 g	50 mL	179.172 g	179.151 g		10/27/11
20	L11100434-41	SAMP	7	1.388 g	50 mL	176.734 g	176.695 g		10/27/11
21	L11100434-42	SAMP	7	1.424 g	50 mL	177.639 g	177.664 g		10/27/11
22	L11100434-43	SAMP	7	1.377 g	50 mL	178.657 g	178.353 g		10/27/11
23	L11100434-44	SAMP	7	1.374 g	50 mL	176.975 g	176.92 g		10/27/11
24	L11100434-45	SAMP	7	1.498 g	50 mL	177.211 g	177.204 g		10/27/11
25	L11100434-46	SAMP	7	1.332 g	50 mL	179.595 g	179.547 g		10/27/11
26	L11100434-47	SAMP	7	1.391 g	50 mL	177.437 g	177.32 g		10/27/11
27	L11100434-48	SAMP	7	1.364 g	50 mL	176.808 g	176.599 g		10/27/11

Analyst: Brenda Gregory

Reviewer: Vicki Collier



Microbac Laboratories Inc.
Microwave Digestion Log

Workgroup: WG379303
Analyst: BRG
Spike Analyst: ERP
Run Date: 10/18/2011 07:54
Method: 3051A
Balance: BAL013
Instrument: MW-3

SOP: ME406 Revision 12
Spike Solution: STD47842
Spike Witness: VC
HNO3 Lot #: COA15720
HCL Lot #: COA15709
Digestion Tubes Lot #: COA15719

	SAMPLE #	Type	Matrix	Initial Amount	Final Volume	Initial Vessel Wt	Final Vessel Wt	Spike Amount	Due Date
1	WG379303-02	BLANK	10	1 g	50 mL	177.342 g	177.316 g		
2	WG379303-03	LCS	10	1 g	50 mL	181.29 g	181.244 g	5 mL	
3	WG379303-01	REF	7	1.404 g	50 mL	174.721 g	174.697 g		
4	L11100434-37	RS03	7	1.404 g	50 mL	174.721 g	174.697 g		10/27/11
5	WG379303-04	MS	7	1.404 g	50 mL	184.168 g	184.084 g	5 mL	
6	L11100434-38	MS03	7	1.404 g	50 mL	184.168 g	184.084 g	5 mL	10/27/11
7	WG379303-05	MSD	7	1.404 g	50 mL	181.372 g	181.354 g	5 mL	
8	L11100434-39	SD03	7	1.404 g	50 mL	181.372 g	181.354 g	5 mL	10/27/11
9	L11100434-49	SAMP	7	1.359 g	50 mL	177.854 g	177.224 g		10/27/11
10	L11100434-50	SAMP	7	1.347 g	50 mL	177.695 g	177.393 g		10/27/11
11	L11100434-51	SAMP	7	1.493 g	50 mL	178.294 g	177.787 g		10/27/11
12	L11100434-52	SAMP	7	1.359 g	50 mL	178.994 g	178.962 g		10/27/11
13	L11100434-53	SAMP	7	1.381 g	50 mL	177.811 g	177.607 g		10/27/11
14	L11100434-54	SAMP	7	1.404 g	50 mL	176.557 g	176.313 g		10/27/11
15	L11100434-55	SAMP	7	1.495 g	50 mL	179.442 g	179.37 g		10/27/11
16	L11100434-56	SAMP	7	1.461 g	50 mL	178.013 g	177.967 g		10/27/11
17	L11100434-57	SAMP	7	1.421 g	50 mL	177.426 g	177.348 g		10/27/11
18	L11100483-11	SAMP	7	1.369 g	50 mL	176.925 g	176.743 g		10/21/11
19	L11100483-12	SAMP	7	1.332 g	50 mL	179.52 g	179.466 g		10/21/11
20	L11100483-13	SAMP	7	1.497 g	50 mL	176.67 g	176.408 g		10/21/11
21	L11100483-14	SAMP	7	1.365 g	50 mL	176.443 g	175.961 g		10/21/11
22	L11100483-15	SAMP	7	1.474 g	50 mL	178.47 g	178.456 g		10/21/11
23	L11100483-16	SAMP	7	1.362 g	50 mL	177.392 g	177.211 g		10/21/11
24	L11100483-17	SAMP	7	1.426 g	50 mL	177.062 g	176.999 g		10/21/11
25	L11100483-18	SAMP	7	1.334 g	50 mL	180.17 g	180.143 g		10/21/11
26	L11100483-22	SAMP	7	1.342 g	50 mL	176.804 g	176.505 g		10/21/11
27	L11100520-01	SAMP	10	1.43 g	50 mL	175.819 g	175.776 g		10/20/11

L11100520-01 sample reacted to the acid

Analyst: Brenda Gregory

Reviewer: Verche Collier



Microbac Laboratories Inc.
Microwave Digestion Log

Workgroup: WG379198
Analyst: REK
Spike Analyst: BRG
Run Date: 10/17/2011 09:59
Method: 3051A
Balance: BAL014
Instrument: MW-3

SOP: ME406 Revision 12
Spike Solution: STD47842
Spike Witness: VC
HCL Lot #: COA15709
Digestion Tubes Lot #: COA15719
HNO3 Lot #: COA15720

	SAMPLE #	Type	Matrix	Initial Amount	Final Volume	Initial Vessel Wt	Final Vessel Wt	Spike Amount	Due Date
1	WG379198-02	BLANK	7	1 g	50 mL	176.67 g	176.673 g		
2	WG379198-03	LCS	7	1 g	50 mL	181.95 g	181.966 g	5 mL	
3	L11100292-37	SAMP	7	1.002 g	50 mL	176.718 g	176.67 g		10/21/11
4	L11100292-38	SAMP	7	1.006 g	50 mL	176.948 g	176.909 g		10/21/11
5	L11100292-39	SAMP	7	1.017 g	50 mL	176.849 g	176.748 g		10/21/11
6	L11100292-40	SAMP	7	1.01 g	50 mL	179.77 g	179.722 g		10/21/11
7	WG379198-01	REF	7	1.009 g	50 mL	175.401 g	175.349 g		
8	L11100292-41	RS03	7	1.009 g	50 mL	175.401 g	175.349 g		10/21/11
9	WG379198-04	MS	7	1.009 g	50 mL	183.876 g	183.778 g	5 mL	
10	L11100292-42	MS03	7	1.009 g	50 mL	183.876 g	183.778 g	5 mL	10/21/11
11	WG379198-05	MSD	7	1.009 g	50 mL	181.603 g	181.552 g	5 mL	
12	L11100292-43	SD03	7	1.009 g	50 mL	181.603 g	181.552 g	5 mL	10/21/11
13	L11100292-44	SAMP	7	1.014 g	50 mL	179.223 g	179.231 g		10/21/11
14	L11100292-45	SAMP	7	1.018 g	50 mL	177.291 g	177.268 g		10/21/11
15	L11100292-46	SAMP	7	1.011 g	50 mL	178.095 g	177.972 g		10/21/11
16	L11100292-47	SAMP	7	1.001 g	50 mL	176.002 g	175.941 g		10/21/11
17	L11100292-48	SAMP	7	1.003 g	50 mL	176.913 g	176.859 g		10/21/11
18	L11100293-01	SAMP	7	1.001 g	50 mL	177.067 g	176.867 g		10/21/11
19	L11100293-02	SAMP	7	1.013 g	50 mL	177.871 g	177.754 g		10/21/11
20	L11100293-03	SAMP	7	1.003 g	50 mL	175.753 g	175.726 g		10/21/11
21	L11100293-04	SAMP	7	1.005 g	50 mL	175.735 g	175.714 g		10/21/11
22	L11100293-05	SAMP	7	1.003 g	50 mL	176.886 g	176.507 g		10/21/11
23	L11100434-19	SAMP	7	1.369 g	50 mL	177.641 g	177.598 g		10/27/11
24	L11100434-23	SAMP	7	1.327 g	50 mL	176.658 g	176.617 g		10/27/11
25	L11100434-24	SAMP	7	1.362 g	50 mL	178.851 g	178.732 g		10/27/11
26	L11100434-25	SAMP	7	1.3 g	50 mL	176.774 g	176.409 g		10/27/11
27	L11100434-26	SAMP	7	1.356 g	50 mL	178.763 g	178.253 g		10/27/11

Analyst: *REK*

Reviewer: *Veeche Collier*



Microbac Laboratories Inc.
Microwave Digestion Log

Workgroup: WG379148
Analyst: BRG
Spike Analyst: BRG
Run Date: 10/17/2011 07:42
Method: 3051A
Balance: BAL014
Instrument: MW-1

SOP: ME406 Revision 12
Spike Solution: STD47842
Spike Witness: VC
HNO3 Lot #: COA15720
HCL Lot #: COA15709
Digestion Tubes Lot #: COA15719

	SAMPLE #	Type	Matrix	Initial Amount	Final Volume	Initial Vessel Wt	Final Vessel Wt	Spike Amount	Due Date
1	WG379148-02	BLANK	10	1 g	50 mL	175.981 g	175.975 g		
2	WG379148-03	LCS	10	1 g	50 mL	181.919 g	181.916 g	5 mL	
3	L11100434-01	SAMP	7	1.321 g	50 mL	178.941 g	178.221 g		10/27/11
4	L11100434-02	SAMP	7	1.308 g	50 mL	176.657 g	176.19 g		10/27/11
5	L11100434-03	SAMP	7	1.363 g	50 mL	176.42 g	175.89 g		10/27/11
6	L11100434-04	SAMP	7	1.332 g	50 mL	179.887 g	179.656 g		10/27/11
7	L11100434-05	SAMP	7	1.378 g	50 mL	176.196 g	175.993 g		10/27/11
8	L11100434-06	SAMP	7	1.367 g	50 mL	176.523 g	176.299 g		10/27/11
9	L11100434-07	SAMP	7	1.37 g	50 mL	177.613 g	177.539 g		10/27/11
10	L11100434-08	SAMP	7	1.327 g	50 mL	179.416 g	178.797 g		10/27/11
11	L11100434-09	SAMP	7	1.399 g	50 mL	178.388 g	178.201 g		10/27/11
12	L11100434-10	SAMP	7	1.488 g	50 mL	177.931 g	177.693 g		10/27/11
13	L11100434-11	SAMP	7	1.41 g	50 mL	178.361 g	178.081 g		10/27/11
14	L11100434-12	SAMP	7	1.448 g	50 mL	175.968 g	175.599 g		10/27/11
15	L11100434-13	SAMP	7	1.397 g	50 mL	177.088 g	176.754 g		10/27/11
16	WG379148-01	REF	7	1.342 g	50 mL	177.003 g	176.86 g		
17	L11100434-14	RS01	7	1.342 g	50 mL	177.003 g	176.86 g		10/27/11
18	WG379148-04	MS	7	1.342 g	50 mL	182.147 g	182.053 g	5 mL	
19	L11100434-15	MS01	7	1.342 g	50 mL	182.147 g	182.053 g	5 mL	10/27/11
20	WG379148-05	MSD	7	1.342 g	50 mL	182.267 g	182.008 g	5 mL	
21	L11100434-16	SD01	7	1.342 g	50 mL	182.267 g	182.008 g	5 mL	10/27/11
22	L11100434-17	SAMP	7	1.347 g	50 mL	178.77 g	178.01 g		10/27/11
23	L11100434-18	SAMP	7	1.319 g	50 mL	176.017 g	175.642 g		10/27/11
24	L11100468-01	SAMP	10	1.013 g	50 mL	175.443 g	175.14 g		10/19/11
25	L11100468-02	SAMP	10	1.011 g	50 mL	176.23 g	175.741 g		10/19/11
26	L11100468-03	SAMP	10	1.016 g	50 mL	174.948 g	174.887 g		10/19/11
27	L11100468-05	SAMP	10	1.013 g	50 mL	179.706 g	179.338 g		10/19/11

Analyst: Brenda Gregory

Reviewer: Vicki Collier



Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 101711T2.1
 Analyst1: EDL Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 39314

Calibration Std: STD47303 ICV Std: STD47304 Post Spike: STD47551
 ICSA: STD47755 ICSAB: STD47753 Int. Std: STD47652
 CCV: STD46900 LLCCV: _____

378791, 379174, 379178, 379202, 379206, 379215, 379216, 379217

Workgroups:

Comments: Additional Workgroups: 379218, 379219, 379220

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
1	T2.101711.093545	WG379212-01	Calibration Point		1		10/17/11 09:35
2	T2.101711.093909	WG379212-02	Calibration Point		1		10/17/11 09:39
3	T2.101711.094233	WG379212-03	Calibration Point		1		10/17/11 09:42
4	T2.101711.094555	WG379212-04	Calibration Point		1		10/17/11 09:45
5	T2.101711.094907	WG379212-05	Calibration Point		1		10/17/11 09:49
6	T2.101711.095221	WG379212-06	Initial Calibration Verification		1		10/17/11 09:52
7	T2.101711.095530	WG379212-07	Initial Calib Blank		1		10/17/11 09:55
8	T2.101711.095853	WG379212-08	Interference Check		1		10/17/11 09:58
9	T2.101711.100207	WG379212-09	Interference Check		1		10/17/11 10:02
10	T2.101711.100520	WG379212-10	CCV		1		10/17/11 10:05
11	T2.101711.100830	WG379212-11	CCB		1		10/17/11 10:08
12	T2.101711.101158	L11100244-21	6214-C0005	1.33/50	1		10/17/11 10:11
13	T2.101711.101529	WG379212-12	CCV		1		10/17/11 10:15
14	T2.101711.101839	WG379212-13	CCB		1		10/17/11 10:18
15	T2.101711.102208	WG379212-14	Linear Range Check		1		10/17/11 10:22
16	T2.101711.102533	WG379212-14	Linear Range Check		1		10/17/11 10:25
17	T2.101711.102903	WG379212-14	Linear Range Check		1		10/17/11 10:29
18	T2.101711.103234	BLANK	BLANK		1		10/17/11 10:32
19	T2.101711.103602	WG379212-15	CCV		1		10/17/11 10:36
20	T2.101711.103913	WG379212-16	CCB		1		10/17/11 10:39
21	T2.101711.104244	WG379000-02	Method/Prep Blank	1/50	1		10/17/11 10:42
22	T2.101711.104607	WG379000-03	Laboratory Control S	1/50	1		10/17/11 10:46
23	T2.101711.104919	WG379000-01	Reference Sample		1	L11100263-05	10/17/11 10:49
24	T2.101711.105228	WG379000-04	Matrix Spike	1.372/50	1	L11100263-05	10/17/11 10:52
25	T2.101711.105543	WG379000-05	Matrix Spike Duplica	1.372/50	1	L11100263-05	10/17/11 10:55
26	T2.101711.105850	L11100263-20	TS737-SS-1C	1.366/50	1		10/17/11 10:58
27	T2.101711.110159	L11100263-21	TS737-SS-2C	1.403/50	1		10/17/11 11:01
28	T2.101711.110509	WG379174-01	Post Digestion Spike		1	L11100263-21	10/17/11 11:05
29	T2.101711.110818	WG379174-02	Serial Dilution		5	L11100263-21	10/17/11 11:08
30	T2.101711.111131	WG379174-02	Serial Dilution		25	L11100263-21	10/17/11 11:11
31	T2.101711.111454	WG379212-17	CCV		1		10/17/11 11:14
32	T2.101711.111805	WG379212-18	CCB		1		10/17/11 11:18
33	T2.101711.112135	L11100350-32	6257-C0052	1.339/50	1		10/17/11 11:21
34	T2.101711.112454	L11100350-33	6257-C0053	1.353/50	1		10/17/11 11:24

Page: 1 Approved: October 18, 2011

Maren Beery



Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 101711T2.1
 Analyst1: EDL Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 39314

Calibration Std: STD47303 ICV Std: STD47304 Post Spike: STD47551
 ICSA: STD47755 ICSAB: STD47753 Int. Std: STD47652
 CCV: STD46900 LLCCV: _____

378791, 379174, 379178, 379202, 379206, 379215, 379216, 379217

Workgroups:

Comments: Additional Workgroups: 379218, 379219, 379220

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
35	T2.101711.112810	L11100350-34	6257-C0054	1.303/50	1		10/17/11 11:28
36	T2.101711.113136	L11100350-35	6257-C0055	1.358/50	1		10/17/11 11:31
37	T2.101711.113503	L11100350-36	6257-C0056	1.33/50	1		10/17/11 11:35
38	T2.101711.113823	L11100397-01	11J0368-01 \#897-1 SB FRO	1.122/50	1		10/17/11 11:38
39	T2.101711.114134	L11100397-02	11J0368-02 \#897-2 SB BAC	1.006/50	1		10/17/11 11:41
40	T2.101711.114445	L11100397-03	11J0368-03 \#897- SB FRON	1.006/50	1		10/17/11 11:44
41	T2.101711.114756	L11100397-04	11J0368-04 \#897- SB BACK	1.021/50	1		10/17/11 11:47
42	T2.101711.115107	L11100398-01	11J0366-01 \#896 LEAF#1	1/50	1		10/17/11 11:51
43	T2.101711.115416	WG379212-19	CCV		1		10/17/11 11:54
44	T2.101711.115726	WG379212-20	CCB		1		10/17/11 11:57
45	T2.101711.120057	L11100398-02	11J0366-02 \#896 LEAF&ST	1.05/50	1		10/17/11 12:00
46	T2.101711.120410	L11100398-03	11J0366-03 \#896 LEAF#3	1.016/50	1		10/17/11 12:04
47	T2.101711.120723	L11100398-04	11J0366-04 \#896 LEAF#4	1.009/50	1		10/17/11 12:07
48	T2.101711.121035	L11100398-05	11J0366-05 \#896 STALK#1	1.069/50	1		10/17/11 12:10
49	T2.101711.121351	L11100398-06	11J0366-06 \#896 STALK#3	1.009/50	1		10/17/11 12:13
50	T2.101711.121707	L11100398-07	11J0366-07 \#896 STALK#4	1.032/50	1		10/17/11 12:17
51	T2.101711.122023	L11100418-01	BORROW1-3	1.324/50	1		10/17/11 12:20
52	T2.101711.122341	L11100397-01	11J0368-01 \#897-1 SB FRO	1.122/50	100		10/17/11 12:23
53	T2.101711.122708	WG379212-21	CCV		1		10/17/11 12:27
54	T2.101711.123019	WG379212-22	CCB		1		10/17/11 12:30
55	T2.101711.123348	WG379148-02	Method/Prep Blank	1/50	1		10/17/11 12:33
56	T2.101711.123711	WG379148-03	Laboratory Control S	1/50	1		10/17/11 12:37
57	T2.101711.124022	L11100434-01	DE-30A-10102011	1.321/50	1		10/17/11 12:40
58	T2.101711.124343	L11100434-02	DE-30B-10102011	1.308/50	1		10/17/11 12:43
59	T2.101711.124658	L11100434-03	DE-30C-10102011	1.363/50	1		10/17/11 12:46
60	T2.101711.125006	L11100434-04	DE-30D-10102011	1.332/50	1		10/17/11 12:50
61	T2.101711.125320	L11100434-05	DE-30E-10102011	1.378/50	1		10/17/11 12:53
62	T2.101711.125629	WG379202-01	Post Digestion Spike		1	L11100434-05	10/17/11 12:56
63	T2.101711.125935	WG379202-02	Serial Dilution		5	L11100434-05	10/17/11 12:59
64	T2.101711.130249	WG379202-02	Serial Dilution		25	L11100434-05	10/17/11 13:02
65	T2.101711.130615	WG379212-23	CCV		1		10/17/11 13:06
66	T2.101711.130925	WG379212-24	CCB		1		10/17/11 13:09
67	T2.101711.131254	L11100434-06	DE-30F-10102011	1.367/50	1		10/17/11 13:12
68	T2.101711.131616	L11100434-07	DE-30G-10102011	1.37/50	1		10/17/11 13:16

Page: 2 Approved: October 18, 2011

Maren Beery



Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 101711T2.1
 Analyst1: EDL Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 39314

Calibration Std: STD47303 ICV Std: STD47304 Post Spike: STD47551
 ICSA: STD47755 ICSAB: STD47753 Int. Std: STD47652
 CCV: STD46900 LLCCV: _____

378791, 379174, 379178, 379202, 379206, 379215, 379216, 379217

Workgroups:

Comments: Additional Workgroups: 379218, 379219, 379220

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
69	T2.101711.131936	L11100434-08	DE-31A-10102011	1.327/50	1		10/17/11 13:19
70	T2.101711.132308	L11100434-09	DE-31B-10102011	1.399/50	1		10/17/11 13:23
71	T2.101711.132615	L11100434-10	DE-31C-10102011	1.488/50	1		10/17/11 13:26
72	T2.101711.132932	L11100434-11	DE-31D-10102011	1.41/50	1		10/17/11 13:29
73	T2.101711.133248	L11100434-12	DE-31E-10102011	1.448/50	1		10/17/11 13:32
74	T2.101711.133605	L11100434-13	DE-31F-10102011	1.397/50	1		10/17/11 13:36
75	T2.101711.133923	WG379148-01	Reference Sample		1	L11100434-14	10/17/11 13:39
76	T2.101711.134239	WG379148-04	Matrix Spike	1.342/50	1	L11100434-14	10/17/11 13:42
77	T2.101711.134600	WG379212-25	CCV		1		10/17/11 13:46
78	T2.101711.134912	WG379212-26	CCB		1		10/17/11 13:49
79	T2.101711.135242	WG379148-05	Matrix Spike Duplica	1.342/50	1	L11100434-14	10/17/11 13:52
80	T2.101711.135556	L11100434-17	DE-32A-10102011	1.347/50	1		10/17/11 13:55
81	T2.101711.135928	L11100434-18	DE-32B-10102011	1.319/50	1		10/17/11 13:59
82	T2.101711.140251	L11100468-01	COST-38	1.013/50	1		10/17/11 14:02
83	T2.101711.140604	L11100468-02	COST-39	1.011/50	1		10/17/11 14:06
84	T2.101711.140917	L11100468-03	COST-40	1.016/50	1		10/17/11 14:09
85	T2.101711.141230	L11100468-05	COST-41	1.013/50	1		10/17/11 14:12
86	T2.101711.141543	WG379212-27	Interference Check		1		10/17/11 14:15
87	T2.101711.141855	WG379212-28	Interference Check		1		10/17/11 14:18
88	T2.101711.142210	WG379212-29	CCV		1		10/17/11 14:22
89	T2.101711.142521	WG379212-30	CCB		1		10/17/11 14:25
90	T2.101711.142850	WG378761-02	Method/Prep Blank	1/50	1		10/17/11 14:28
91	T2.101711.143217	WG378761-03	Laboratory Control S	1/50	1		10/17/11 14:32
92	T2.101711.143540	L11100247-38	6430-C0081	1.332/50	1		10/17/11 14:35
93	T2.101711.143852	L11100247-39	6430-C0082	1.328/50	1		10/17/11 14:38
94	T2.101711.144211	L11100247-40	6430-C0083	1.376/50	1		10/17/11 14:42
95	T2.101711.144521	WG379178-01	Post Digestion Spike		1	L11100247-40	10/17/11 14:45
96	T2.101711.144828	WG379178-02	Serial Dilution		5	L11100247-40	10/17/11 14:48
97	T2.101711.145142	WG379178-02	Serial Dilution		25	L11100247-40	10/17/11 14:51
98	T2.101711.145502	WG378761-01	Reference Sample		1	L11100247-41	10/17/11 14:55
99	T2.101711.145819	WG378761-04	Matrix Spike	1.384/50	1	L11100247-41	10/17/11 14:58
100	T2.101711.150143	WG379212-31	CCV		1		10/17/11 15:01
101	T2.101711.150454	WG379212-32	CCB		1		10/17/11 15:04
102	T2.101711.150827	WG378761-05	Matrix Spike Duplica	1.384/50	1	L11100247-41	10/17/11 15:08

Page: 3 Approved: October 18, 2011

Maren Beery



Microbac Laboratories Inc.

Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 101711T2.1
 Analyst1: EDL Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 39314

Calibration Std: STD47303 ICV Std: STD47304 Post Spike: STD47551
 ICSA: STD47755 ICSAB: STD47753 Int. Std: STD47652
 CCV: STD46900 LLCCV: _____

378791, 379174, 379178, 379202, 379206, 379215, 379216, 379217

Workgroups:

Comments: Additional Workgroups: 379218, 379219, 379220

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
103	T2.101711.151136	L11100247-44	6430-C0085	1.394/50	1		10/17/11 15:11
104	T2.101711.151452	L11100247-45	6430-C0086	1.398/50	1		10/17/11 15:14
105	T2.101711.151808	L11100247-46	6430-C0087	1.437/50	1		10/17/11 15:18
106	T2.101711.152125	L11100247-47	6430-C0088	1.394/50	1		10/17/11 15:21
107	T2.101711.152435	L11100247-48	6430-C0089	1.48/50	1		10/17/11 15:24
108	T2.101711.152747	L11100249-01	6430-C0090	1.324/50	1		10/17/11 15:27
109	T2.101711.153056	L11100249-02	6430-C0091	1.347/50	1		10/17/11 15:30
110	T2.101711.153421	L11100249-03	6430-C0092	1.452/50	1		10/17/11 15:34
111	T2.101711.153739	L11100249-04	6430-C0093	1.345/50	1		10/17/11 15:37
112	T2.101711.154057	WG379212-33	CCV		1		10/17/11 15:40
113	T2.101711.154409	WG379212-34	CCB		1		10/17/11 15:44
114	T2.101711.154741	L11100249-05	6430-C0094	1.412/50	1		10/17/11 15:47
115	T2.101711.155100	L11100249-06	6430-C0095	1.333/50	1		10/17/11 15:51
116	T2.101711.155410	L11100249-07	6430-C0096	1.442/50	1		10/17/11 15:54
117	T2.101711.155719	L11100249-08	6430-C0097	1.318/50	1		10/17/11 15:57
118	T2.101711.160040	L11100249-09	6430-C0098	1.382/50	1		10/17/11 16:00
119	T2.101711.160356	L11100249-10	6430-C0099	1.364/50	1		10/17/11 16:03
120	T2.101711.160716	L11100249-11	6430-C0100	1.326/50	1		10/17/11 16:07
121	T2.101711.161038	WG379212-35	CCV		1		10/17/11 16:10
122	T2.101711.161348	WG379212-36	CCB		1		10/17/11 16:13
123	T2.101711.161717	WG378765-02	Method/Prep Blank	1/50	1		10/17/11 16:17
124	T2.101711.162040	WG378765-03	Laboratory Control S	1/50	1		10/17/11 16:20
125	T2.101711.162403	L11100249-12	6430-C0101	1.333/50	1		10/17/11 16:24
126	T2.101711.162719	L11100249-13	6430-C0102	1.348/50	1		10/17/11 16:27
127	T2.101711.163031	L11100249-14	6430-C0103	1.312/50	1		10/17/11 16:30
128	T2.101711.163342	L11100249-15	6430-C0104	1.335/50	1		10/17/11 16:33
129	T2.101711.163651	L11100249-16	6430-C0105	1.324/50	1		10/17/11 16:36
130	T2.101711.164007	WG379206-01	Post Digestion Spike		1	L11100249-16	10/17/11 16:40
131	T2.101711.164322	WG379206-02	Serial Dilution		5	L11100249-16	10/17/11 16:43
132	T2.101711.164634	WG379206-02	Serial Dilution		25	L11100249-16	10/17/11 16:46
133	T2.101711.164959	WG379212-37	CCV		1		10/17/11 16:49
134	T2.101711.165309	WG379212-38	CCB		1		10/17/11 16:53
135	T2.101711.165638	L11100249-17	6430-C0106	1.481/50	1		10/17/11 16:56
136	T2.101711.165953	L11100249-18	6430-C0107	1.42/50	1		10/17/11 16:59

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 101711T2.1
 Analyst1: EDL Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 39314

Calibration Std: STD47303 ICV Std: STD47304 Post Spike: STD47551
 ICSA: STD47755 ICSAB: STD47753 Int. Std: STD47652
 CCV: STD46900 LLCCV: _____

378791, 379174, 379178, 379202, 379206, 379215, 379216, 379217

Workgroups:

Comments: Additional Workgroups: 379218, 379219, 379220

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
137	T2.101711.170308	L11100249-19	6430-C0108	1.413/50	1		10/17/11 17:03
138	T2.101711.170624	L11100249-20	6430-C0109	1.41/50	1		10/17/11 17:06
139	T2.101711.170941	L11100249-21	6430-C0110	1.421/50	1		10/17/11 17:09
140	T2.101711.171259	L11100249-22	6430-C0111	1.317/50	1		10/17/11 17:12
141	T2.101711.171617	L11100249-23	6430-C0112	1.336/50	1		10/17/11 17:16
142	T2.101711.171932	L11100249-24	6430-C0113	1.342/50	1		10/17/11 17:19
143	T2.101711.172242	L11100249-25	6430-C0114	1.339/50	1		10/17/11 17:22
144	T2.101711.172600	L11100249-26	6430-C0115	1.437/50	1		10/17/11 17:26
145	T2.101711.172921	WG379212-39	CCV		1		10/17/11 17:29
146	T2.101711.173230	WG379212-40	CCB		1		10/17/11 17:32
147	T2.101711.173557	L11100249-27	6430-C0116	1.33/50	1		10/17/11 17:35
148	T2.101711.173908	L11100249-28	6430-C0117	1.411/50	1		10/17/11 17:39
149	T2.101711.174224	L11100249-29	6430-C0118	1.324/50	1		10/17/11 17:42
150	T2.101711.174532	L11100249-30	6430-C0119	1.327/50	1		10/17/11 17:45
151	T2.101711.174848	WG378765-01	Reference Sample		1	L11100249-31	10/17/11 17:48
152	T2.101711.175158	WG378765-04	Matrix Spike	1.376/50	1	L11100249-31	10/17/11 17:51
153	T2.101711.175511	WG378765-05	Matrix Spike Duplica	1.376/50	1	L11100249-31	10/17/11 17:55
154	T2.101711.175828	WG379212-41	CCV		1		10/17/11 17:58
155	T2.101711.180138	WG379212-42	CCB		1		10/17/11 18:01
156	T2.101711.180504	WG378553-02	Method/Prep Blank	1/50	1		10/17/11 18:05
157	T2.101711.180828	WG378553-03	Laboratory Control S	1/50	1		10/17/11 18:08
158	T2.101711.181140	L11100221-01	TS737-SS-22B	1.011/50	1		10/17/11 18:11
159	T2.101711.181447	L11100221-02	TS737-SS-21B	1.025/50	1		10/17/11 18:14
160	T2.101711.181802	L11100221-03	TS737-SS-20B	1.012/50	1		10/17/11 18:18
161	T2.101711.182118	L11100221-04	TS737-SS-19B	1.048/50	1		10/17/11 18:21
162	T2.101711.182435	L11100221-05	TS737-SS-18B		1		10/17/11 18:24
163	T2.101711.182742	WG379215-01	Post Digestion Spike		1	L11100221-05	10/17/11 18:27
164	T2.101711.183048	L11100221-05	TS737-SS-18B		5		10/17/11 18:30
165	T2.101711.183400	WG379215-02	Serial Dilution		25	L11100221-05	10/17/11 18:34
166	T2.101711.183725	WG379212-43	CCV		1		10/17/11 18:37
167	T2.101711.184036	WG379212-44	CCB		1		10/17/11 18:40
168	T2.101711.184406	L11100221-06	TS737-SS-17B	1.011/50	1		10/17/11 18:44
169	T2.101711.184714	L11100221-07	TS737-SS-16B	1.01/50	1		10/17/11 18:47
170	T2.101711.185021	WG378553-01	Reference Sample		1	L11100221-08	10/17/11 18:50

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Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 101711T2.1
 Analyst1: EDL Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 39314

Calibration Std: STD47303 ICV Std: STD47304 Post Spike: STD47551
 ICSA: STD47755 ICSAB: STD47753 Int. Std: STD47652
 CCV: STD46900 LLCCV: _____

378791, 379174, 379178, 379202, 379206, 379215, 379216, 379217

Workgroups:

Comments: Additional Workgroups: 379218, 379219, 379220

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
171	T2.101711.185327	WG378553-04	Matrix Spike	.955/50	1	L11100221-08	10/17/11 18:53
172	T2.101711.185633	WG378553-05	Matrix Spike Duplica	.955/50	1	L11100221-08	10/17/11 18:56
173	T2.101711.185939	L11100221-11	TS737-SS-14B	.934/50	1		10/17/11 18:59
174	T2.101711.190254	L11100221-12	TS737-SS-14BD	1.016/50	1		10/17/11 19:02
175	T2.101711.190608	L11100221-13	TS737-SS-13B	1.033/50	1		10/17/11 19:06
176	T2.101711.190922	L11100221-14	TS737-SS-12B	1.044/50	1		10/17/11 19:09
177	T2.101711.191239	L11100221-15	TS737-SS-11B	1.005/50	1		10/17/11 19:12
178	T2.101711.191603	WG379212-45	CCV		1		10/17/11 19:16
179	T2.101711.191930	WG379212-46	CCB		1		10/17/11 19:19
180	T2.101711.192300	L11100221-16	TS737-SS-10B	1.05/50	1		10/17/11 19:23
181	T2.101711.192615	L11100221-17	TS737-SS-09B	1.019/50	1		10/17/11 19:26
182	T2.101711.192928	L11100221-18	TS737-SS-08B	1.049/50	1		10/17/11 19:29
183	T2.101711.193243	L11100221-19	TS737-SS-07B	1.016/50	1		10/17/11 19:32
184	T2.101711.193559	L11100221-20	TS737-SS-07BD	1.004/50	1		10/17/11 19:35
185	T2.101711.193910	L11100221-21	TS737-SS-06B	1.019/50	1		10/17/11 19:39
186	T2.101711.194223	L11100221-22	TS737-SS-05B	1.05/50	1		10/17/11 19:42
187	T2.101711.194544	WG379212-47	CCV		1		10/17/11 19:45
188	T2.101711.194855	WG379212-48	CCB		1		10/17/11 19:48
189	T2.101711.195224	WG378555-02	Method/Prep Blank	1/50	1		10/17/11 19:52
190	T2.101711.195548	WG378555-03	Laboratory Control S	1/50	1		10/17/11 19:55
191	T2.101711.195900	L11100222-02	TS737-SS-20A	1.015/50	1		10/17/11 19:59
192	T2.101711.200215	L11100222-03	TS737-SS-21A	1.008/50	1		10/17/11 20:02
193	T2.101711.200533	L11100222-04	TS737-SS-22A	1.027/50	1		10/17/11 20:05
194	T2.101711.200847	L11100222-05	TS737-SS-23A	1/50	1		10/17/11 20:08
195	T2.101711.201154	L11100222-06	TS737-SS-24A		1		10/17/11 20:11
196	T2.101711.201509	WG379216-01	Post Digestion Spike		1	L11100222-06	10/17/11 20:15
197	T2.101711.201822	L11100222-06	TS737-SS-24A		5		10/17/11 20:18
198	T2.101711.202132	WG379216-02	Serial Dilution		25	L11100222-06	10/17/11 20:21
199	T2.101711.202455	WG379212-49	CCV		1		10/17/11 20:24
200	T2.101711.202807	WG379212-50	CCB		1		10/17/11 20:28
201	T2.101711.203135	L11100222-07	TS737-SS-25A	1.04/50	1		10/17/11 20:31
202	T2.101711.203449	L11100222-08	TS737-SS-26A	1.034/50	1		10/17/11 20:34
203	T2.101711.203759	L11100222-09	TS737-SS-27A	1.026/50	1		10/17/11 20:37
204	T2.101711.204107	L11100222-10	TS737-SS-28A	1.016/50	1		10/17/11 20:41

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 101711T2.1
 Analyst1: EDL Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 39314

Calibration Std: STD47303 ICV Std: STD47304 Post Spike: STD47551
 ICSA: STD47755 ICSAB: STD47753 Int. Std: STD47652
 CCV: STD46900 LLCCV: _____

378791, 379174, 379178, 379202, 379206, 379215, 379216, 379217

Workgroups:

Comments: Additional Workgroups: 379218, 379219, 379220

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
205	T2.101711.204414	L11100222-11	TS737-SS-01A	1.02/50	1		10/17/11 20:44
206	T2.101711.204726	L11100222-12	TS737-SS-02A	1.05/50	1		10/17/11 20:47
207	T2.101711.205032	WG378555-01	Reference Sample		1	L11100222-13	10/17/11 20:50
208	T2.101711.205348	L11100222-14	TS737-SS-04A	1/50	1		10/17/11 20:53
209	T2.101711.205706	L11100222-15	TS737-SS-05A	1.036/50	1		10/17/11 20:57
210	T2.101711.210020	L11100222-16	TS737-SS-06A	.812/50	1		10/17/11 21:00
211	T2.101711.210345	WG379212-51	CCV		1		10/17/11 21:03
212	T2.101711.210654	WG379212-52	CCB		1		10/17/11 21:06
213	T2.101711.211024	L11100222-17	TS737-SS-07A	1.05/50	1		10/17/11 21:10
214	T2.101711.211338	L11100222-18	TS737-SS-08A	1.025/50	1		10/17/11 21:13
215	T2.101711.211645	L11100222-22	TS737-SS-32B	1.001/50	1		10/17/11 21:16
216	T2.101711.211952	L11100222-23	TS737-SS-31B	1.008/50	1		10/17/11 21:19
217	T2.101711.212304	L11100222-24	TS737-SS-30B	1.032/50	1		10/17/11 21:23
218	T2.101711.212619	WG378555-04	Matrix Spike	1.025/50	1	L11100222-13	10/17/11 21:26
219	T2.101711.212936	WG378555-05	Matrix Spike Duplica	1.025/50	1	L11100222-13	10/17/11 21:29
220	T2.101711.213259	WG379212-53	CCV		1		10/17/11 21:32
221	T2.101711.213610	WG379212-54	CCB		1		10/17/11 21:36
222	T2.101711.213939	WG378586-02	Method/Prep Blank	1/50	1		10/17/11 21:39
223	T2.101711.214303	WG378586-03	Laboratory Control S	1/50	1		10/17/11 21:43
224	T2.101711.214614	WG378586-01	Reference Sample		1	L11100222-21	10/17/11 21:46
225	T2.101711.214928	L11100222-25	TS737-SS-29B	1.008/50	1		10/17/11 21:49
226	T2.101711.215243	L11100222-26	TS737-SS-28B	1.006/50	1		10/17/11 21:52
227	T2.101711.215559	L11100222-27	TS737-SS-27BD	1.022/50	1		10/17/11 21:55
228	T2.101711.215912	L11100222-28	TS737-SS-27B	1.039/50	1		10/17/11 21:59
229	T2.101711.220226	WG379217-01	Post Digestion Spike		1	L11100222-28	10/17/11 22:02
230	T2.101711.220539	WG379217-02	Serial Dilution		5	L11100222-28	10/17/11 22:05
231	T2.101711.220849	WG379217-02	Serial Dilution		25	L11100222-28	10/17/11 22:08
232	T2.101711.221209	WG379212-55	CCV		1		10/17/11 22:12
233	T2.101711.221519	WG379212-56	CCB		1		10/17/11 22:15
234	T2.101711.221845	L11100222-29	TS737-SS-26B	1.031/50	1		10/17/11 22:18
235	T2.101711.222200	L11100222-30	TS737-SS-25B	1.006/50	1		10/17/11 22:22
236	T2.101711.222508	L11100222-31	TS737-SS-24B	1.012/50	1		10/17/11 22:25
237	T2.101711.222824	L11100222-32	TS737-SS-23B	1.024/50	1		10/17/11 22:28
238	T2.101711.223134	L11100222-33	TS737-SS-11A	1.007/50	1		10/17/11 22:31

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 101711T2.1
 Analyst1: EDL Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 39314

Calibration Std: STD47303 ICV Std: STD47304 Post Spike: STD47551
 ICSA: STD47755 ICSAB: STD47753 Int. Std: STD47652
 CCV: STD46900 LLCCV: _____

378791, 379174, 379178, 379202, 379206, 379215, 379216, 379217

Workgroups:

Comments: Additional Workgroups: 379218, 379219, 379220

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
239	T2.101711.223441	L11100222-34	TS737-SS-12A	1.01/50	1		10/17/11 22:34
240	T2.101711.223757	L11100222-35	TS737-SS-13A	1.034/50	1		10/17/11 22:37
241	T2.101711.224112	L11100222-36	TS737-SS-14A	1.011/50	1		10/17/11 22:41
242	T2.101711.224425	L11100222-37	TS737-SS-15A	1.029/50	1		10/17/11 22:44
243	T2.101711.224742	L11100222-38	TS737-SS-15AD	1.024/50	1		10/17/11 22:47
244	T2.101711.225101	WG379212-57	CCV		1		10/17/11 22:51
245	T2.101711.225410	WG379212-58	CCB		1		10/17/11 22:54
246	T2.101711.225736	L11100222-39	TS737-SS-16A	1.001/50	1		10/17/11 22:57
247	T2.101711.230044	L11100222-40	TS737-SS-17A	1.006/50	1		10/17/11 23:00
248	T2.101711.230353	L11100222-41	TS737-SS-18A	1.019/50	1		10/17/11 23:03
249	T2.101711.230706	L11100222-42	TS737-SS-01B	1.044/50	1		10/17/11 23:07
250	T2.101711.231022	L11100222-43	TS737-SS-02B	.979/50	1		10/17/11 23:10
251	T2.101711.231339	WG378586-04	Matrix Spike Duplica	1.004/50	1	L11100222-21	10/17/11 23:13
252	T2.101711.231652	WG378586-05	Matrix Spike	1.004/50	1	L11100222-21	10/17/11 23:16
253	T2.101711.232006	WG379212-59	CCV		1		10/17/11 23:20
254	T2.101711.232316	WG379212-60	CCB		1		10/17/11 23:23
255	T2.101711.232645	WG378602-02	Method/Prep Blank	1/50	1		10/17/11 23:26
256	T2.101711.233009	WG378602-03	Laboratory Control S	1/50	1		10/17/11 23:30
257	T2.101711.233321	L11100222-44	TS737-SS-03B	1.028/50	1		10/17/11 23:33
258	T2.101711.233636	L11100222-45	TS737-SS-04B	.42/50	1		10/17/11 23:36
259	T2.101711.233947	L11100222-46	TS737-SS-36B	1/50	1		10/17/11 23:39
260	T2.101711.234255	L11100222-47	TS737-SS-35B	1.027/50	1		10/17/11 23:42
261	T2.101711.234602	L11100222-48	TS737-SS-34B	1.02/50	1		10/17/11 23:46
262	T2.101711.234918	WG379218-01	Post Digestion Spike		1	L11100222-48	10/17/11 23:49
263	T2.101711.235227	L11100222-48	TS737-SS-34B		5		10/17/11 23:52
264	T2.101711.235537	WG379218-02	Serial Dilution		25	L11100222-48	10/17/11 23:55
265	T2.101711.235858	WG379212-61	CCV		1		10/17/11 23:58
266	T2.101811.000208	WG379212-62	CCB		1		10/18/11 00:02
267	T2.101811.000537	L11100222-51	TS737-SS-27AD	1.002/50	1		10/18/11 00:05
268	T2.101811.000846	L11100263-01	TS737-SB-1B	1.482/50	1		10/18/11 00:08
269	T2.101811.001204	L11100263-02	TS737-SB-5B	1.485/50	1		10/18/11 00:12
270	T2.101811.001521	L11100263-03	TS737-SB-9B	1.413/50	1		10/18/11 00:15
271	T2.101811.001837	L11100263-04	TS737-SB-13B	1.404/50	1		10/18/11 00:18
272	T2.101811.002153	L11100263-05	TS737-SB-15B		1		10/18/11 00:21

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 101711T2.1
 Analyst1: EDL Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 39314

Calibration Std: STD47303 ICV Std: STD47304 Post Spike: STD47551
 ICSA: STD47755 ICSAB: STD47753 Int. Std: STD47652
 CCV: STD46900 LLCCV: _____

378791, 379174, 379178, 379202, 379206, 379215, 379216, 379217

Workgroups:

Comments: Additional Workgroups: 379218, 379219, 379220

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
273	T2.101811.002504	L11100263-06	TS737-SB-19B	1.427/50	1		10/18/11 00:25
274	T2.101811.002813	L11100263-07	TS737-SB-23B	1.313/50	1		10/18/11 00:28
275	T2.101811.003123	L11100263-08	TS737-SB-27B	1.4/50	1		10/18/11 00:31
276	T2.101811.003441	L11100263-09	TS737-SB-31B	1.46/50	1		10/18/11 00:34
277	T2.101811.003759	WG379212-63	CCV		1		10/18/11 00:37
278	T2.101811.004108	WG379212-64	CCB		1		10/18/11 00:41
279	T2.101811.004434	L11100263-10	TS737-SB-33B	1.431/50	1		10/18/11 00:44
280	T2.101811.004742	L11100263-11	TS737-SS-12C DUP	1.394/50	1		10/18/11 00:47
281	T2.101811.005100	WG378602-04	Matrix Spike	1.493/50	1	L11100263-31	10/18/11 00:51
282	T2.101811.005412	WG378602-05	Matrix Spike Duplica	1.493/50	1	L11100263-31	10/18/11 00:54
283	T2.101811.005726	L11100263-14	TS737-SS-18C DUP	1.358/50	1		10/18/11 00:57
284	T2.101811.010034	L11100263-17	TS737-SB-15B DUP	1.023/50	1		10/18/11 01:00
285	T2.101811.010344	WG378602-01	Reference Sample		1	L11100263-31	10/18/11 01:03
286	T2.101811.010705	WG379212-65	CCV		1		10/18/11 01:07
287	T2.101811.011015	WG379212-66	CCB		1		10/18/11 01:10
288	T2.101811.011346	WG378767-02	Method/Prep Blank	1/50	1		10/18/11 01:13
289	T2.101811.011710	WG378767-03	Laboratory Control S	1/50	1		10/18/11 01:17
290	T2.101811.012031	L11100249-32	8004-C0043	1.404/50	1		10/18/11 01:20
291	T2.101811.012356	L11100249-33	8004-C0044	1.36/50	1		10/18/11 01:23
292	T2.101811.012724	L11100249-34	8004-C0045	1.436/50	1		10/18/11 01:27
293	T2.101811.013034	L11100249-35	8004-C0046	1.401/50	1		10/18/11 01:30
294	T2.101811.013345	L11100249-36	8004-C0047	1.349/50	1		10/18/11 01:33
295	T2.101811.013703	WG379219-01	Post Digestion Spike		1	L11100249-36	10/18/11 01:37
296	T2.101811.014019	WG379219-02	Serial Dilution		5	L11100249-36	10/18/11 01:40
297	T2.101811.014331	WG379219-02	Serial Dilution		25	L11100249-36	10/18/11 01:43
298	T2.101811.014657	WG379212-67	CCV		1		10/18/11 01:46
299	T2.101811.015006	WG379212-68	CCB		1		10/18/11 01:50
300	T2.101811.015339	L11100249-37	8004-C0048	1.319/50	1		10/18/11 01:53
301	T2.101811.015649	L11100249-38	8004-C0049	1.348/50	1		10/18/11 01:56
302	T2.101811.020016	L11100340-01	10991-C0001	1.411/50	1		10/18/11 02:00
303	T2.101811.020334	L11100340-02	10991-C0002	1.485/50	1		10/18/11 02:03
304	T2.101811.020651	L11100340-03	10991-C0003	1.462/50	1		10/18/11 02:06
305	T2.101811.021011	L11100340-04	10991-C0004	1.428/50	1		10/18/11 02:10
306	T2.101811.021329	L11100340-05	10991-C0005	1.456/50	1		10/18/11 02:13

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 101711T2.1
 Analyst1: EDL Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 39314

Calibration Std: STD47303 ICV Std: STD47304 Post Spike: STD47551
 ICSA: STD47755 ICSAB: STD47753 Int. Std: STD47652
 CCV: STD46900 LLCCV: _____

378791, 379174, 379178, 379202, 379206, 379215, 379216, 379217

Workgroups:

Comments: Additional Workgroups: 379218, 379219, 379220

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
307	T2.101811.021646	L11100340-06	10991-C0006	1.325/50	1		10/18/11 02:16
308	T2.101811.022004	L11100340-07	10991-C0007	1.363/50	1		10/18/11 02:20
309	T2.101811.022312	L11100340-08	10991-C0008	1.384/50	1		10/18/11 02:23
310	T2.101811.022629	WG379212-69	CCV		1		10/18/11 02:26
311	T2.101811.022939	WG379212-70	CCB		1		10/18/11 02:29
312	T2.101811.023312	WG378767-01	Reference Sample		1	L11100340-09	10/18/11 02:33
313	T2.101811.023630	WG378767-04	Matrix Spike	1.373/50	1	L11100340-09	10/18/11 02:36
314	T2.101811.023947	WG378767-05	Matrix Spike Duplica	1.373/50	1	L11100340-09	10/18/11 02:39
315	T2.101811.024256	L11100340-12	10991-C0010	1.329/50	1		10/18/11 02:42
316	T2.101811.024620	L11100340-13	10991-C0011	1.346/50	1		10/18/11 02:46
317	T2.101811.024937	L11100340-14	10991-C0012	1.398/50	1		10/18/11 02:49
318	T2.101811.025246	L11100340-15	10991-C0013	1.316/50	1		10/18/11 02:52
319	T2.101811.025559	WG379212-71	CCV		1		10/18/11 02:55
320	T2.101811.025908	WG379212-72	CCB		1		10/18/11 02:59
321	T2.101811.030240	WG378771-02	Method/Prep Blank	1/50	1		10/18/11 03:02
322	T2.101811.030603	WG378771-03	Laboratory Control S	1/50	1		10/18/11 03:06
323	T2.101811.030925	L11100340-16	10991-C0014	1.36/50	1		10/18/11 03:09
324	T2.101811.031235	L11100340-17	10991-C0015	1.448/50	1		10/18/11 03:12
325	T2.101811.031552	L11100340-18	10991-C0016	1.362/50	1		10/18/11 03:15
326	T2.101811.031901	L11100340-19	10991-C0017	1.362/50	1		10/18/11 03:19
327	T2.101811.032219	L11100340-20	10991-C0018	1.345/50	1		10/18/11 03:22
328	T2.101811.032536	WG379220-01	Post Digestion Spike		1	L11100340-20	10/18/11 03:25
329	T2.101811.032842	WG379220-02	Serial Dilution		5	L11100340-20	10/18/11 03:28
330	T2.101811.033155	WG379220-02	Serial Dilution		25	L11100340-20	10/18/11 03:31
331	T2.101811.033514	WG379212-73	CCV		1		10/18/11 03:35
332	T2.101811.033823	WG379212-74	CCB		1		10/18/11 03:38
333	T2.101811.034154	L11100340-21	10991-C0019	1.389/50	1		10/18/11 03:41
334	T2.101811.034510	L11100340-22	10991-C0020	1.371/50	1		10/18/11 03:45
335	T2.101811.034834	WG378771-01	Reference Sample		1	L11100340-23	10/18/11 03:48
336	T2.101811.035142	WG378771-04	Matrix Spike	1.367/50	1	L11100340-23	10/18/11 03:51
337	T2.101811.035451	WG378771-05	Matrix Spike Duplica	1.367/50	1	L11100340-23	10/18/11 03:54
338	T2.101811.035759	L11100340-26	10991-C0022	1.366/50	1		10/18/11 03:57
339	T2.101811.040107	L11100340-27	10991-C0023	1.346/50	1		10/18/11 04:01
340	T2.101811.040414	L11100340-28	10991-C0024	1.35/50	1		10/18/11 04:04

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Microbac Laboratories Inc.

Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 101711T2.1
 Analyst1: EDL Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 39314

Calibration Std: STD47303 ICV Std: STD47304 Post Spike: STD47551
 ICSA: STD47755 ICSAB: STD47753 Int. Std: STD47652
 CCV: STD46900 LLCCV: _____

378791, 379174, 379178, 379202, 379206, 379215, 379216, 379217

Workgroups:

Comments: Additional Workgroups: 379218, 379219, 379220

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
341	T2.101811.040722	L11100340-29	10991-C0025	1.376/50	1		10/18/11 04:07
342	T2.101811.041031	L11100340-30	10991-C0026	1.35/50	1		10/18/11 04:10
343	T2.101811.041356	WG379212-75	CCV		1		10/18/11 04:13
344	T2.101811.041706	WG379212-76	CCB		1		10/18/11 04:17
345	T2.101811.042036	L11100340-31	10991-C0027	1.384/50	1		10/18/11 04:20
346	T2.101811.042345	L11100340-32	10991-C0028	1.459/50	1		10/18/11 04:23
347	T2.101811.042655	L11100340-33	10991-C0029	1.38/50	1		10/18/11 04:26
348	T2.101811.043010	L11100340-34	10991-C0030	1.363/50	1		10/18/11 04:30
349	T2.101811.043320	L11100340-35	10991-C0031	1.367/50	1		10/18/11 04:33
350	T2.101811.043627	L11100340-36	10991-C0032	1.372/50	1		10/18/11 04:36
351	T2.101811.043934	L11100340-37	10991-C0033	1.48/50	1		10/18/11 04:39
352	T2.101811.044249	WG379212-77	CCV		1		10/18/11 04:42
353	T2.101811.044559	WG379212-78	CCB		1		10/18/11 04:45

Comments

Seq.	Rerun	Dil.	Reason	Analytes
272			Data not used.	

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 101811T2.2
 Analyst1: EDL Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 39335

Calibration Std: STD48012 ICV Std: STD47751 Post Spike: STD47551
 ICSA: STD48048 ICSAB: STD48049 Int. Std: STD47652
 CCV: STD48110 LLCCV: _____

379174, 379347, 379348, 379369, 379370, 379371

Workgroups:

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
1	T2.101811.094319	WG379358-01	Calibration Point		1		10/18/11 09:43
2	T2.101811.094645	WG379358-02	Calibration Point		1		10/18/11 09:46
3	T2.101811.095010	WG379358-03	Calibration Point		1		10/18/11 09:50
4	T2.101811.095333	WG379358-04	Calibration Point		1		10/18/11 09:53
5	T2.101811.095643	WG379358-05	Calibration Point		1		10/18/11 09:56
6	T2.101811.095956	WG379358-06	Initial Calibration Verification		1		10/18/11 09:59
7	T2.101811.100304	WG379358-07	Initial Calib Blank		1		10/18/11 10:03
8	T2.101811.100627	WG379358-08	Interference Check		1		10/18/11 10:06
9	T2.101811.100940	WG379358-09	Interference Check		1		10/18/11 10:09
10	T2.101811.101253	WG379358-10	CCV		1		10/18/11 10:12
11	T2.101811.101605	WG379358-11	CCB		1		10/18/11 10:16
12	T2.101811.102354	WG379358-12	Initial Calibration Verification		1		10/18/11 10:23
13	T2.101811.102704	WG379358-13	Initial Calib Blank		1		10/18/11 10:27
14	T2.101811.103029	WG379358-14	Interference Check		1		10/18/11 10:30
15	T2.101811.103344	WG379358-15	Interference Check		1		10/18/11 10:33
16	T2.101811.103658	WG379358-16	CCV		1		10/18/11 10:36
17	T2.101811.104006	WG379358-17	CCB		1		10/18/11 10:40
18	T2.101811.104338	LC-SS	LCSS SPIKE CHECK		100		10/18/11 10:43
19	T2.101811.104701	WG379000-02	Method/Prep Blank	1/50	1		10/18/11 10:47
20	T2.101811.105032	WG379000-03	Laboratory Control S	1/50	1		10/18/11 10:50
21	T2.101811.105345	WG379000-01	Reference Sample		1	L11100263-05	10/18/11 10:53
22	T2.101811.105654	WG379000-04	Matrix Spike	1.372/50	1	L11100263-05	10/18/11 10:56
23	T2.101811.110004	WG379000-05	Matrix Spike Duplica	1.372/50	1	L11100263-05	10/18/11 11:00
24	T2.101811.110311	L11100397-01	11J0368-01 \#897-1 SB FRO	1.122/50	1		10/18/11 11:03
25	T2.101811.110623	L11100397-02	11J0368-02 \#897-2 SB BAC	1.006/50	1		10/18/11 11:06
26	T2.101811.110934	WG379174-03	Post Digestion Spike		1	L11100397-02	10/18/11 11:09
27	T2.101811.111242	WG379174-04	Serial Dilution		5	L11100397-02	10/18/11 11:12
28	T2.101811.111559	WG379358-18	CCV		1		10/18/11 11:15
29	T2.101811.111909	WG379358-19	CCB		1		10/18/11 11:19
30	T2.101811.112237	WG379174-04	Serial Dilution		25	L11100397-02	10/18/11 11:22
31	T2.101811.112554	L11100397-03	11J0368-03 \#897- SB FRON	1.006/50	1		10/18/11 11:25
32	T2.101811.112906	L11100397-04	11J0368-04 \#897- SB BACK	1.021/50	1		10/18/11 11:29
33	T2.101811.113217	L11100398-01	11J0366-01 \#896 LEAF#1 T	1/50	1		10/18/11 11:32
34	T2.101811.113531	L11100398-02	11J0366-02 \#896 LEAF&ST	1.05/50	1		10/18/11 11:35

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 101811T2.2
 Analyst1: EDL Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 39335

Calibration Std: STD48012 ICV Std: STD47751 Post Spike: STD47551
 ICSA: STD48048 ICSAB: STD48049 Int. Std: STD47652
 CCV: STD48110 LLCCV: _____

379174, 379347, 379348, 379369, 379370, 379371

Workgroups:

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
35	T2.101811.113844	L11100398-03	11J0366-03 \#896 LEAF\#3	1.016/50	1		10/18/11 11:38
36	T2.101811.114158	L11100398-04	11J0366-04 \#896 LEAF\#4	1.009/50	1		10/18/11 11:41
37	T2.101811.114511	L11100398-05	11J0366-05 \#896 STALK\#1	1.069/50	1		10/18/11 11:45
38	T2.101811.114828	L11100398-06	11J0366-06 \#896 STALK\#3	1.009/50	1		10/18/11 11:48
39	T2.101811.115144	L11100398-07	11J0366-07 \#896 STALK\#4	1.032/50	1		10/18/11 11:51
40	T2.101811.115509	WG379358-20	CCV		1		10/18/11 11:55
41	T2.101811.115817	WG379358-21	CCB		1		10/18/11 11:58
42	T2.101811.120146	WG379303-02	Method/Prep Blank	1/50	1		10/18/11 12:01
43	T2.101811.120509	WG379303-03	Laboratory Control S	1/50	1		10/18/11 12:05
44	T2.101811.120819	WG379303-01	Reference Sample		1	L11100434-37	10/18/11 12:08
45	T2.101811.121139	WG379303-04	Matrix Spike	1.404/50	1	L11100434-37	10/18/11 12:11
46	T2.101811.121454	WG379303-05	Matrix Spike Duplica	1.404/50	1	L11100434-37	10/18/11 12:14
47	T2.101811.121809	L11100434-49	DE-27A-10112011	1.359/50	1		10/18/11 12:18
48	T2.101811.122116	L11100434-50	DE-27B-10112011	1.347/50	1		10/18/11 12:21
49	T2.101811.122426	WG379347-01	Post Digestion Spike		1	L11100434-50	10/18/11 12:24
50	T2.101811.122731	WG379347-02	Serial Dilution		5	L11100434-50	10/18/11 12:27
51	T2.101811.123043	WG379347-02	Serial Dilution		25	L11100434-50	10/18/11 12:30
52	T2.101811.123407	WG379358-22	CCV		1		10/18/11 12:34
53	T2.101811.123717	WG379358-23	CCB		1		10/18/11 12:37
54	T2.101811.124049	L11100434-51	DE-27C-10112011	1.493/50	1		10/18/11 12:40
55	T2.101811.124404	L11100434-52	DE-27D-10112011	1.359/50	1		10/18/11 12:44
56	T2.101811.124727	L11100434-53	DE-27E-10112011	1.381/50	1		10/18/11 12:47
57	T2.101811.125052	L11100434-54	DE-27F-10112011	1.404/50	1		10/18/11 12:50
58	T2.101811.125411	L11100434-55	DE-27G-10112011	1.495/50	1		10/18/11 12:54
59	T2.101811.125735	L11100434-56	DUP-SOIL-10112011-01	1.461/50	1		10/18/11 12:57
60	T2.101811.130052	L11100434-57	DUP-SOIL-10112011-02	1.421/50	1		10/18/11 13:00
61	T2.101811.130408	L11100483-11	10823-C0021	1.369/50	1		10/18/11 13:04
62	T2.101811.130718	L11100483-12	10823-C0022	1.332/50	1		10/18/11 13:07
63	T2.101811.131028	L11100483-13	10823-C0023	1.497/50	1		10/18/11 13:10
64	T2.101811.131345	WG379358-24	CCV		1		10/18/11 13:13
65	T2.101811.131653	WG379358-25	CCB		1		10/18/11 13:16
66	T2.101811.132026	L11100483-14	10823-C0024	1.365/50	1		10/18/11 13:20
67	T2.101811.132336	L11100483-15	10823-C0025	1.474/50	1		10/18/11 13:23
68	T2.101811.132648	L11100483-16	10823-C0026	1.362/50	1		10/18/11 13:26

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Microbac Laboratories Inc.

Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 101811T2.2
 Analyst1: EDL Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 39335

Calibration Std: STD48012 ICV Std: STD47751 Post Spike: STD47551
 ICSA: STD48048 ICSAB: STD48049 Int. Std: STD47652
 CCV: STD48110 LLCCV: _____

379174, 379347, 379348, 379369, 379370, 379371

Workgroups:

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
69	T2.101811.132958	L11100483-17	10823-C0027	1.426/50	1		10/18/11 13:29
70	T2.101811.133311	L11100483-18	10823-C0028	1.334/50	1		10/18/11 13:33
71	T2.101811.133621	L11100483-22	10823-C0030	1.342/50	1		10/18/11 13:36
72	T2.101811.133932	L11100520-01	101711CH	1.43/50	1		10/18/11 13:39
73	T2.101811.134315	WG379358-26	Interference Check		1		10/18/11 13:43
74	T2.101811.134628	WG379358-27	Interference Check		1		10/18/11 13:46
75	T2.101811.134943	WG379358-28	CCV		1		10/18/11 13:49
76	T2.101811.135253	WG379358-29	CCB		1		10/18/11 13:52
77	T2.101811.135622	WG378852-02	Method/Prep Blank	1/50	1		10/18/11 13:56
78	T2.101811.135948	WG378852-03	Laboratory Control S	1/50	1		10/18/11 13:59
79	T2.101811.140310	L11100342-06	11166-C0050	1.317/50	1		10/18/11 14:03
80	T2.101811.140619	L11100342-07	11166-C0051	1.334/50	1		10/18/11 14:06
81	T2.101811.140937	L11100342-08	11166-C0052	1.406/50	1		10/18/11 14:09
82	T2.101811.141258	L11100342-09	11166-C0053	1.498/50	1		10/18/11 14:12
83	T2.101811.141615	L11100342-10	11166-C0054	1.432/50	1		10/18/11 14:16
84	T2.101811.141933	WG379348-01	Post Digestion Spike		1	L11100342-10	10/18/11 14:19
85	T2.101811.142243	WG379348-02	Serial Dilution		5	L11100342-10	10/18/11 14:22
86	T2.101811.142556	WG379348-02	Serial Dilution		25	L11100342-10	10/18/11 14:25
87	T2.101811.142926	WG379358-30	CCV		1		10/18/11 14:29
88	T2.101811.143234	WG379358-31	CCB		1		10/18/11 14:32
89	T2.101811.143606	L11100342-11	11199-C0001	1.356/50	1		10/18/11 14:36
90	T2.101811.143939	L11100342-12	11199-C0002	1.447/50	1		10/18/11 14:39
91	T2.101811.144313	L11100342-13	11199-C0003	1.422/50	1		10/18/11 14:43
92	T2.101811.144626	L11100342-14	11199-C0004	1.354/50	1		10/18/11 14:46
93	T2.101811.144943	L11100342-15	11199-C0005	1.353/50	1		10/18/11 14:49
94	T2.101811.145257	L11100342-16	11199-C0006	1.346/50	1		10/18/11 14:52
95	T2.101811.145615	L11100342-17	11199-C0007	1.33/50	1		10/18/11 14:56
96	T2.101811.145929	L11100342-18	11199-C0008	1.41/50	1		10/18/11 14:59
97	T2.101811.150242	L11100342-19	11199-C0009	1.428/50	1		10/18/11 15:02
98	T2.101811.150554	L11100342-20	11199-C0010	1.38/50	1		10/18/11 15:05
99	T2.101811.150915	WG379358-32	CCV		1		10/18/11 15:09
100	T2.101811.151226	WG379358-33	CCB		1		10/18/11 15:12
101	T2.101811.151559	L11100342-21	11199-C0011		1		10/18/11 15:15
102	T2.101811.151930	L11100342-22	11199-C0012		1		10/18/11 15:19

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 101811T2.2
 Analyst1: EDL Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 39335

Calibration Std: STD48012 ICV Std: STD47751 Post Spike: STD47551
 ICSA: STD48048 ICSAB: STD48049 Int. Std: STD47652
 CCV: STD48110 LLCCV: _____

379174, 379347, 379348, 379369, 379370, 379371

Workgroups:

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
103	T2.101811.152245	L11100342-23	11199-C0013		1		10/18/11 15:22
104	T2.101811.152601	L11100342-24	11199-C0014		1		10/18/11 15:26
105	T2.101811.152925	WG378852-01	Reference Sample		1	L11100342-28	10/18/11 15:29
106	T2.101811.153241	WG378852-04	Matrix Spike		1	L11100342-28	10/18/11 15:32
107	T2.101811.153555	WG378852-05	Matrix Spike Duplica		1	L11100342-28	10/18/11 15:35
108	T2.101811.153914	WG379358-34	CCV		1		10/18/11 15:39
109	T2.101811.154224	WG379358-35	CCB		1		10/18/11 15:42
110	T2.101811.154552	WG378854-02	Method/Prep Blank		1		10/18/11 15:45
111	T2.101811.154917	WG378854-03	Laboratory Control S		1		10/18/11 15:49
112	T2.101811.155238	L11100342-25	11199-C0015		1		10/18/11 15:52
113	T2.101811.155554	L11100342-26	11199-C0016		1		10/18/11 15:55
114	T2.101811.155907	L11100342-27	11199-C0017		1		10/18/11 15:59
115	T2.101811.160233	L11100342-31	11199-C0019		1		10/18/11 16:02
116	T2.101811.160550	L11100342-32	11199-C0020		1		10/18/11 16:05
117	T2.101811.160904	WG379349-01	Post Digestion Spike		1	L11100342-32	10/18/11 16:09
118	T2.101811.161217	WG379349-02	Serial Dilution		5	L11100342-32	10/18/11 16:12
119	T2.101811.161529	WG379349-02	Serial Dilution		25	L11100342-32	10/18/11 16:15
120	T2.101811.161852	WG379358-36	CCV		1		10/18/11 16:18
121	T2.101811.162201	WG379358-37	CCB		1		10/18/11 16:22
122	T2.101811.162526	L11100342-33	11199-C0021		1		10/18/11 16:25
123	T2.101811.162837	L11100342-34	11199-C0022		1		10/18/11 16:28
124	T2.101811.163152	L11100342-35	11199-C0023		1		10/18/11 16:31
125	T2.101811.163509	L11100342-36	11199-C0024		1		10/18/11 16:35
126	T2.101811.163825	L11100342-37	11199-C0025		1		10/18/11 16:38
127	T2.101811.164141	L11100342-38	11199-C0026		1		10/18/11 16:41
128	T2.101811.164457	L11100342-39	11199-C0027		1		10/18/11 16:44
129	T2.101811.164814	WG378854-01	Reference Sample		1	L11100342-40	10/18/11 16:48
130	T2.101811.165132	WG378854-04	Matrix Spike		1	L11100342-40	10/18/11 16:51
131	T2.101811.165448	WG378854-05	Matrix Spike Duplica		1	L11100342-40	10/18/11 16:54
132	T2.101811.165810	WG379358-38	CCV		1		10/18/11 16:58
133	T2.101811.170119	WG379358-39	CCB		1		10/18/11 17:01
134	T2.101811.170449	L11100342-43	11199-C0029		1		10/18/11 17:04
135	T2.101811.170803	L11100342-44	11199-C0030		1		10/18/11 17:08
136	T2.101811.171120	L11100342-45	11199-C0031		1		10/18/11 17:11

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 101811T2.2
 Analyst1: EDL Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 39335

Calibration Std: STD48012 ICV Std: STD47751 Post Spike: STD47551
 ICSA: STD48048 ICSAB: STD48049 Int. Std: STD47652
 CCV: STD48110 LLCCV: _____

379174, 379347, 379348, 379369, 379370, 379371

Workgroups:

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
137	T2.101811.171434	L11100342-46	11199-C0032		1		10/18/11 17:14
138	T2.101811.171752	L11100342-47	11199-C0033		1		10/18/11 17:17
139	T2.101811.172114	L11100342-48	11199-C0034		1		10/18/11 17:21
140	T2.101811.172438	L11100343-01	11199-C0035		1		10/18/11 17:24
141	T2.101811.172805	WG379358-40	CCV		1		10/18/11 17:28
142	T2.101811.173113	WG379358-41	CCB		1		10/18/11 17:31
143	T2.101811.173444	WG378856-02	Method/Prep Blank		1		10/18/11 17:34
144	T2.101811.173809	WG378856-03	Laboratory Control S		1		10/18/11 17:38
145	T2.101811.174132	L11100343-02	11199-C0036		1		10/18/11 17:41
146	T2.101811.174455	L11100343-03	11199-C0037		1		10/18/11 17:44
147	T2.101811.174811	L11100343-04	11199-C0038		1		10/18/11 17:48
148	T2.101811.175127	L11100343-05	11199-C0039		1		10/18/11 17:51
149	T2.101811.175441	L11100343-06	11199-C0040		1		10/18/11 17:54
150	T2.101811.175755	WG379366-01	Post Digestion Spike		1	L11100343-06	10/18/11 17:57
151	T2.101811.180109	WG379366-02	Serial Dilution		5	L11100343-06	10/18/11 18:01
152	T2.101811.180420	WG379366-02	Serial Dilution		25	L11100343-06	10/18/11 18:04
153	T2.101811.180746	WG379358-42	CCV		1		10/18/11 18:07
154	T2.101811.181054	WG379358-43	CCB		1		10/18/11 18:10
155	T2.101811.181425	L11100343-07	11199-C0041		1		10/18/11 18:14
156	T2.101811.181740	L11100343-08	11199-C0042		1		10/18/11 18:17
157	T2.101811.182055	L11100343-09	11199-C0043		1		10/18/11 18:20
158	T2.101811.182410	L11100343-10	11199-C0044		1		10/18/11 18:24
159	T2.101811.182726	L11100343-11	11199-C0045		1		10/18/11 18:27
160	T2.101811.183052	L11100343-12	11199-C0046		1		10/18/11 18:30
161	T2.101811.183407	L11100343-13	11199-C0047		1		10/18/11 18:34
162	T2.101811.183733	L11100343-14	11199-C0048		1		10/18/11 18:37
163	T2.101811.184051	L11100343-15	11199-C0049		1		10/18/11 18:40
164	T2.101811.184406	L11100343-16	11199-C0050		1		10/18/11 18:44
165	T2.101811.184740	WG379358-44	CCV		1		10/18/11 18:47
166	T2.101811.185048	WG379358-45	CCB		1		10/18/11 18:50
167	T2.101811.185418	L11100343-17	11199-C0051		1		10/18/11 18:54
168	T2.101811.185731	L11100343-18	11199-C0052		1		10/18/11 18:57
169	T2.101811.190053	L11100343-19	12266-C0001		1		10/18/11 19:00
170	T2.101811.190409	L11100343-20	12266-C0002		1		10/18/11 19:04

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 101811T2.2
 Analyst1: EDL Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 39335

Calibration Std: STD48012 ICV Std: STD47751 Post Spike: STD47551
 ICSA: STD48048 ICSAB: STD48049 Int. Std: STD47652
 CCV: STD48110 LLCCV: _____

379174, 379347, 379348, 379369, 379370, 379371

Workgroups:

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
171	T2.101811.190725	WG378856-01	Reference Sample		1	L11100343-23	10/18/11 19:07
172	T2.101811.191052	WG378856-04	Matrix Spike		1	L11100343-23	10/18/11 19:10
173	T2.101811.191418	WG378856-05	Matrix Spike Duplica		1	L11100343-23	10/18/11 19:14
174	T2.101811.191750	WG379358-46	CCV		1		10/18/11 19:17
175	T2.101811.192059	WG379358-47	CCB		1		10/18/11 19:20
176	T2.101811.192429	WG378863-02	Method/Prep Blank		1		10/18/11 19:24
177	T2.101811.192754	WG378863-03	Laboratory Control S		1		10/18/11 19:27
178	T2.101811.193116	L11100343-21	12266-C0003		1		10/18/11 19:31
179	T2.101811.193432	L11100343-22	12266-C0004		1		10/18/11 19:34
180	T2.101811.193747	L11100343-26	12266-C0006		1		10/18/11 19:37
181	T2.101811.194121	L11100343-27	12266-C0007		1		10/18/11 19:41
182	T2.101811.194446	L11100343-28	12266-C0008		1		10/18/11 19:44
183	T2.101811.194801	WG379367-01	Post Digestion Spike		1	L11100343-28	10/18/11 19:48
184	T2.101811.195116	WG379367-02	Serial Dilution		5	L11100343-28	10/18/11 19:51
185	T2.101811.195427	WG379367-02	Serial Dilution		25	L11100343-28	10/18/11 19:54
186	T2.101811.195752	WG379358-48	CCV		1		10/18/11 19:57
187	T2.101811.200101	WG379358-49	CCB		1		10/18/11 20:01
188	T2.101811.200428	L11100343-29	12266-C0009		1		10/18/11 20:04
189	T2.101811.200746	L11100343-30	12266-C0010		1		10/18/11 20:07
190	T2.101811.201103	L11100343-31	12266-C0011		1		10/18/11 20:11
191	T2.101811.201421	L11100343-32	12266-C0012		1		10/18/11 20:14
192	T2.101811.201737	L11100343-33	12266-C0013		1		10/18/11 20:17
193	T2.101811.202052	L11100343-34	12266-C0014		1		10/18/11 20:20
194	T2.101811.202406	L11100343-35	12266-C0015		1		10/18/11 20:24
195	T2.101811.202724	L11100343-36	12266-C0016		1		10/18/11 20:27
196	T2.101811.203043	L11100343-37	12266-C0017		1		10/18/11 20:30
197	T2.101811.203358	L11100343-38	12266-C0018		1		10/18/11 20:33
198	T2.101811.203725	WG379358-50	CCV		1		10/18/11 20:37
199	T2.101811.204033	WG379358-51	CCB		1		10/18/11 20:40
200	T2.101811.204404	L11100343-39	12266-C0019		1		10/18/11 20:44
201	T2.101811.204719	L11100343-40	12266-C0020		1		10/18/11 20:47
202	T2.101811.205035	L11100343-41	12266-C0021		1		10/18/11 20:50
203	T2.101811.205350	WG378863-01	Reference Sample		1	L11100343-42	10/18/11 20:53
204	T2.101811.205704	WG378863-04	Matrix Spike		1	L11100343-42	10/18/11 20:57

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 101811T2.2
 Analyst1: EDL Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 39335

Calibration Std: STD48012 ICV Std: STD47751 Post Spike: STD47551
 ICSA: STD48048 ICSAB: STD48049 Int. Std: STD47652
 CCV: STD48110 LLCCV: _____

379174, 379347, 379348, 379369, 379370, 379371

Workgroups:

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
205	T2.101811.210019	WG378863-05	Matrix Spike Duplica		1	L11100343-42	10/18/11 21:00
206	T2.101811.210334	L11100343-45	12266-C0023		1		10/18/11 21:03
207	T2.101811.210658	WG379358-52	CCV		1		10/18/11 21:06
208	T2.101811.211007	WG379358-53	CCB		1		10/18/11 21:10
209	T2.101811.211336	WG378864-02	Method/Prep Blank		1		10/18/11 21:13
210	T2.101811.211701	WG378864-03	Laboratory Control S		1		10/18/11 21:17
211	T2.101811.212023	L11100343-46	12266-C0024		1		10/18/11 21:20
212	T2.101811.212339	L11100343-47	12266-C0025		1		10/18/11 21:23
213	T2.101811.212654	L11100343-48	12266-C0026		1		10/18/11 21:26
214	T2.101811.213009	L11100344-01	12266-C0027		1		10/18/11 21:30
215	T2.101811.213325	L11100344-02	12266-C0028		1		10/18/11 21:33
216	T2.101811.213642	WG379368-01	Post Digestion Spike		1	L11100344-02	10/18/11 21:36
217	T2.101811.213956	WG379368-02	Serial Dilution		5	L11100344-02	10/18/11 21:39
218	T2.101811.214308	WG379368-02	Serial Dilution		25	L11100344-02	10/18/11 21:43
219	T2.101811.214632	WG379358-54	CCV		1		10/18/11 21:46
220	T2.101811.214940	WG379358-55	CCB		1		10/18/11 21:49
221	T2.101811.215306	L11100344-03	12266-C0029		1		10/18/11 21:53
222	T2.101811.215624	L11100344-04	12266-C0030		1		10/18/11 21:56
223	T2.101811.215940	L11100344-05	12266-C0031		1		10/18/11 21:59
224	T2.101811.220256	L11100344-06	12266-C0032		1		10/18/11 22:02
225	T2.101811.220612	L11100344-07	12266-C0033		1		10/18/11 22:06
226	T2.101811.220927	L11100344-08	12266-C0034		1		10/18/11 22:09
227	T2.101811.221242	L11100344-09	12266-C0035		1		10/18/11 22:12
228	T2.101811.221557	L11100344-10	12266-C0036		1		10/18/11 22:15
229	T2.101811.221912	L11100344-11	12266-C0037		1		10/18/11 22:19
230	T2.101811.222229	L11100344-12	12266-C0038		1		10/18/11 22:22
231	T2.101811.222548	WG379358-56	CCV		1		10/18/11 22:25
232	T2.101811.222857	WG379358-57	CCB		1		10/18/11 22:28
233	T2.101811.223224	L11100344-13	12266-G0001		1		10/18/11 22:32
234	T2.101811.223542	L11100344-14	12266-G0002		1		10/18/11 22:35
235	T2.101811.223856	L11100344-15	12382-C0001		1		10/18/11 22:38
236	T2.101811.224206	L11100344-16	12382-C0002		1		10/18/11 22:42
237	T2.101811.224516	WG378864-01	Reference Sample		1	L11100344-17	10/18/11 22:45
238	T2.101811.224827	WG378864-04	Matrix Spike		1	L11100344-17	10/18/11 22:48

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 101811T2.2
 Analyst1: EDL Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 39335

Calibration Std: STD48012 ICV Std: STD47751 Post Spike: STD47551
 ICSA: STD48048 ICSAB: STD48049 Int. Std: STD47652
 CCV: STD48110 LLCCV: _____

379174, 379347, 379348, 379369, 379370, 379371

Workgroups:

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
239	T2.101811.225138	WG378864-05	Matrix Spike Duplica		1	L11100344-17	10/18/11 22:51
240	T2.101811.225452	WG379358-58	CCV		1		10/18/11 22:54
241	T2.101811.225801	WG379358-59	CCB		1		10/18/11 22:58
242	T2.101811.230128	WG378866-02	Method/Prep Blank	1/50	1		10/18/11 23:01
243	T2.101811.230453	WG378866-03	Laboratory Control S	1/50	1		10/18/11 23:04
244	T2.101811.230815	L11100344-18	12382-C0004	1.359/50	1		10/18/11 23:08
245	T2.101811.231125	L11100344-19	12382-C0005	1.334/50	1		10/18/11 23:11
246	T2.101811.231435	L11100344-20	12382-C0006	1.339/50	1		10/18/11 23:14
247	T2.101811.231752	L11100344-21	12382-C0007	1.327/50	1		10/18/11 23:17
248	T2.101811.232101	L11100344-22	12382-C0008	1.413/50	1		10/18/11 23:21
249	T2.101811.232415	WG379369-01	Post Digestion Spike		1	L11100344-22	10/18/11 23:24
250	T2.101811.232724	WG379369-02	Serial Dilution		5	L11100344-22	10/18/11 23:27
251	T2.101811.233036	WG379369-02	Serial Dilution		25	L11100344-22	10/18/11 23:30
252	T2.101811.233401	WG379358-60	CCV		1		10/18/11 23:34
253	T2.101811.233710	WG379358-61	CCB		1		10/18/11 23:37
254	T2.101811.234039	L11100344-23	12382-C0009	1.1/50	1		10/18/11 23:40
255	T2.101811.234407	L11100344-24	12382-C0010	1.322/50	1		10/18/11 23:44
256	T2.101811.234727	WG378866-01	Reference Sample		1	L11100344-25	10/18/11 23:47
257	T2.101811.235055	WG378866-04	Matrix Spike	1.048/50	1	L11100344-25	10/18/11 23:50
258	T2.101811.235421	WG378866-05	Matrix Spike Duplica	1.048/50	1	L11100344-25	10/18/11 23:54
259	T2.101811.235748	L11100344-28	12382-C0012	1.334/50	1		10/18/11 23:57
260	T2.101911.000106	L11100344-29	12382-C0013	1.33/50	1		10/19/11 00:01
261	T2.101911.000433	L11100344-30	12382-C0014	1.5/50	1		10/19/11 00:04
262	T2.101911.000743	L11100344-31	12382-C0015	1.307/50	1		10/19/11 00:07
263	T2.101911.001054	L11100344-32	12382-C0016	1.304/50	1		10/19/11 00:10
264	T2.101911.001409	WG379358-62	CCV		1		10/19/11 00:14
265	T2.101911.001717	WG379358-63	CCB		1		10/19/11 00:17
266	T2.101911.002042	L11100344-33	12382-C0017	1.462/50	1		10/19/11 00:20
267	T2.101911.002352	L11100344-34	12382-C0018	1.454/50	1		10/19/11 00:23
268	T2.101911.002702	L11100344-35	12382-C0019	1.319/50	1		10/19/11 00:27
269	T2.101911.003011	L11100344-36	12382-C0020	1.335/50	1		10/19/11 00:30
270	T2.101911.003328	L11100344-37	12382-C0021	1.356/50	1		10/19/11 00:33
271	T2.101911.003637	L11100344-38	12382-C0022	1.391/50	1		10/19/11 00:36
272	T2.101911.003953	L11100344-39	12382-C0023	1.304/50	1		10/19/11 00:39

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Maren Beery



Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 101811T2.2
 Analyst1: EDL Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 39335

Calibration Std: STD48012 ICV Std: STD47751 Post Spike: STD47551
 ICSA: STD48048 ICSAB: STD48049 Int. Std: STD47652
 CCV: STD48110 LLCCV: _____

379174, 379347, 379348, 379369, 379370, 379371

Workgroups:

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
273	T2.101911.004306	WG379358-64	CCV		1		10/19/11 00:43
274	T2.101911.004614	WG379358-65	CCB		1		10/19/11 00:46
275	T2.101911.004939	WG378883-02	Method/Prep Blank	1/50	1		10/19/11 00:49
276	T2.101911.005304	WG378883-03	Laboratory Control S	1/50	1		10/19/11 00:53
277	T2.101911.005626	L11100344-40	12382-C0024	1.371/50	1		10/19/11 00:56
278	T2.101911.005940	L11100344-41	12382-C0025	1.318/50	1		10/19/11 00:59
279	T2.101911.010250	L11100344-42	12382-C0026	1.348/50	1		10/19/11 01:02
280	T2.101911.010603	L11100344-43	12382-C0027	1.369/50	1		10/19/11 01:06
281	T2.101911.010911	L11100344-44	12382-C0028	1.319/50	1		10/19/11 01:09
282	T2.101911.011227	WG379370-01	Post Digestion Spike		1	L11100344-44	10/19/11 01:12
283	T2.101911.011540	WG379370-02	Serial Dilution		5	L11100344-44	10/19/11 01:15
284	T2.101911.011853	WG379370-02	Serial Dilution		25	L11100344-44	10/19/11 01:18
285	T2.101911.012221	WG379358-66	CCV		1		10/19/11 01:22
286	T2.101911.012530	WG379358-67	CCB		1		10/19/11 01:25
287	T2.101911.012903	L11100344-45	12382-C0029	1.372/50	1		10/19/11 01:29
288	T2.101911.013212	L11100344-46	12382-C0030	1.374/50	1		10/19/11 01:32
289	T2.101911.013534	L11100344-47	12382-C0031	1.339/50	1		10/19/11 01:35
290	T2.101911.013845	L11100344-48	12382-C0032	1.364/50	1		10/19/11 01:38
291	T2.101911.014202	WG378883-01	Reference Sample		1	L11100345-01	10/19/11 01:42
292	T2.101911.014512	WG378883-04	Matrix Spike	1.398/50	1	L11100345-01	10/19/11 01:45
293	T2.101911.014819	WG378883-05	Matrix Spike Duplica	1.398/50	1	L11100345-01	10/19/11 01:48
294	T2.101911.015127	L11100345-04	12382-C0034	1.459/50	1		10/19/11 01:51
295	T2.101911.015443	L11100345-05	12382-C0035	1.382/50	1		10/19/11 01:54
296	T2.101911.015754	L11100345-06	12382-C0036	1.489/50	1		10/19/11 01:57
297	T2.101911.020119	WG379358-68	CCV		1		10/19/11 02:01
298	T2.101911.020428	WG379358-69	CCB		1		10/19/11 02:04
299	T2.101911.020802	L11100345-07	12382-C0037	1.339/50	1		10/19/11 02:08
300	T2.101911.021111	L11100345-08	12382-C0038	1.409/50	1		10/19/11 02:11
301	T2.101911.021421	L11100345-09	12382-C0039	1.394/50	1		10/19/11 02:14
302	T2.101911.021739	L11100345-10	12382-C0040	1.357/50	1		10/19/11 02:17
303	T2.101911.022057	L11100345-11	12382-C0041	1.331/50	1		10/19/11 02:20
304	T2.101911.022414	L11100345-12	12382-C0042	1.36/50	1		10/19/11 02:24
305	T2.101911.022731	L11100345-13	12382-C0043	1.349/50	1		10/19/11 02:27
306	T2.101911.023041	WG379358-70	CCV		1		10/19/11 02:30

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Maren Beery



Microbac Laboratories Inc.

Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 101811T2.2
 Analyst1: EDL Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 39335

Calibration Std: STD48012 ICV Std: STD47751 Post Spike: STD47551
 ICSA: STD48048 ICSAB: STD48049 Int. Std: STD47652
 CCV: STD48110 LLCCV: _____

379174, 379347, 379348, 379369, 379370, 379371

Workgroups:

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
307	T2.101911.023349	WG379358-71	CCB		1		10/19/11 02:33
308	T2.101911.023722	WG378890-02	Method/Prep Blank	1/50	1		10/19/11 02:37
309	T2.101911.024046	WG378890-03	Laboratory Control S	1/50	1		10/19/11 02:40
310	T2.101911.024409	L11100345-14	12382-C0044	1.463/50	1		10/19/11 02:44
311	T2.101911.024727	L11100345-15	12382-C0045	1.303/50	1		10/19/11 02:47
312	T2.101911.025037	L11100345-16	12382-C0046	1.359/50	1		10/19/11 02:50
313	T2.101911.025347	L11100345-17	12382-C0047	1.314/50	1		10/19/11 02:53
314	T2.101911.025704	L11100345-18	12382-C0048	1.38/50	1		10/19/11 02:57
315	T2.101911.030021	WG379371-01	Post Digestion Spike		1	L11100345-18	10/19/11 03:00
316	T2.101911.030328	WG379371-02	Serial Dilution		5	L11100345-18	10/19/11 03:03
317	T2.101911.030640	WG379371-02	Serial Dilution		25	L11100345-18	10/19/11 03:06
318	T2.101911.031002	WG379358-72	CCV		1		10/19/11 03:10
319	T2.101911.031311	WG379358-73	CCB		1		10/19/11 03:13
320	T2.101911.031643	L11100345-19	12382-C0049	1.328/50	1		10/19/11 03:16
321	T2.101911.031955	L11100345-20	12382-C0050	1.304/50	1		10/19/11 03:19
322	T2.101911.032306	L11100345-21	12382-C0051	1.42/50	1		10/19/11 03:23
323	T2.101911.032617	L11100345-22	12382-C0052	1.322/50	1		10/19/11 03:26
324	T2.101911.032927	L11100345-23	12382-C0053	1.327/50	1		10/19/11 03:29
325	T2.101911.033239	L11100345-24	12382-C0054	1.41/50	1		10/19/11 03:32
326	T2.101911.033547	L11100345-25	12382-C0055	1.396/50	1		10/19/11 03:35
327	T2.101911.033903	L11100345-26	12382-C0056	1.435/50	1		10/19/11 03:39
328	T2.101911.034214	L11100345-27	12382-C0057	1.381/50	1		10/19/11 03:42
329	T2.101911.034523	L11100345-28	12382-C0058	1.341/50	1		10/19/11 03:45
330	T2.101911.034842	WG379358-74	CCV		1		10/19/11 03:48
331	T2.101911.035150	WG379358-75	CCB		1		10/19/11 03:51
332	T2.101911.035525	L11100345-29	12382-C0059	1.384/50	1		10/19/11 03:55
333	T2.101911.035834	L11100345-30	12382-C0060	1.465/50	1		10/19/11 03:58
334	T2.101911.040144	L11100345-31	12382-C0061	1.031/50	1		10/19/11 04:01
335	T2.101911.040512	L11100345-32	12382-C0062	1.349/50	1		10/19/11 04:05
336	T2.101911.040823	L11100345-33	30951-C0001		1	WG378890-01	10/19/11 04:08
337	T2.101911.041131	WG378890-04	Matrix Spike	1.429/50	1	L11100345-33	10/19/11 04:11
338	T2.101911.041439	WG378890-05	Matrix Spike Duplica	1.429/50	1	L11100345-33	10/19/11 04:14
339	T2.101911.041750	WG379358-76	CCV		1		10/19/11 04:17
340	T2.101911.042058	WG379358-77	CCB		1		10/19/11 04:20

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Maren Beery



Microbac Laboratories Inc.

Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 101811T2.2
 Analyst1: EDL Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 39335

Calibration Std: STD48012 ICV Std: STD47751 Post Spike: STD47551
 ICSA: STD48048 ICSAB: STD48049 Int. Std: STD47652
 CCV: STD48110 LLCCV: _____

379174, 379347, 379348, 379369, 379370, 379371

Workgroups:

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
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Comments

Seq.	Rerun	Dil.	Reason	Analytes
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6

Data not used from 09:59 through 10:16 due to ICV failure for Si.

101

Data not used from 15:15 through 22:51 due to a suspected flow interference that caused multiple CCV failures.

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Maren Beery



Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO1 Dataset: 102011.1R
 Analyst1: PDM Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 39380

Calibration Std: STD47754 ICV Std: STD47751 Post Spike: STD45521
 ICSA: STD48048 ICSAB: STD48049 Int. Std: STD48022
 CCV: STD48021 LLCCV: _____

379620,379621,379688,379537,379540

Workgroups:

Comments: Sequences 144 through 153 and 168 through 307 were not reported due to CCV failures.

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
1	T1.102011.081956	WG379768-01	Calibration Point		1		10/20/11 08:19
2	T1.102011.082340	WG379768-02	Calibration Point		1		10/20/11 08:23
3	T1.102011.082728	WG379768-03	Calibration Point		1		10/20/11 08:27
4	T1.102011.083117	WG379768-04	Calibration Point		1		10/20/11 08:31
5	T1.102011.083449	WG379768-05	Calibration Point		1		10/20/11 08:34
6	T1.102011.083825	WG379768-06	Initial Calibration Verification		1		10/20/11 08:38
7	T1.102011.084156	WG379768-07	Initial Calib Blank		1		10/20/11 08:41
8	T1.102011.084542	WG379768-08	Interference Check		1		10/20/11 08:45
9	T1.102011.084933	WG379768-09	Interference Check		1		10/20/11 08:49
10	T1.102011.085320	WG379768-10	CCV		1		10/20/11 08:53
11	T1.102011.085650	WG379768-11	CCB		1		10/20/11 08:56
12	T1.102011.090039	WG379198-02	Method/Prep Blank	1/50	1		10/20/11 09:00
13	T1.102011.090426	WG379198-03	Laboratory Control S	1/50	1		10/20/11 09:04
14	T1.102011.095145	L11100292-37	75246-C0004	1.002/50	5		10/20/11 09:51
15	T1.102011.095529	WG379620-01	Post Digestion Spike		5	L11100292-37	10/20/11 09:55
16	T1.102011.095917	WG379620-02	Serial Dilution		25	L11100292-37	10/20/11 09:59
17	T1.102011.100259	WG379620-02	Serial Dilution		125	L11100292-37	10/20/11 10:02
18	T1.102011.100646	L11100292-38	75246-C0005	1.006/50	5		10/20/11 10:06
19	T1.102011.101025	L11100292-39	75246-C0006	1.017/50	5		10/20/11 10:10
20	T1.102011.101406	L11100292-40	75246-C0007	1.01/50	5		10/20/11 10:14
21	T1.102011.101746	WG379198-01	Reference Sample		5	L11100292-41	10/20/11 10:17
22	T1.102011.102130	WG379768-12	CCV		1		10/20/11 10:21
23	T1.102011.102502	WG379768-13	CCB		1		10/20/11 10:25
24	T1.102011.102852	WG379198-04	Matrix Spike	1.009/50	5	L11100292-41	10/20/11 10:28
25	T1.102011.103231	WG379198-05	Matrix Spike Duplica	1.009/50	5	L11100292-41	10/20/11 10:32
26	T1.102011.103609	L11100292-44	75246-C0009	1.014/50	5		10/20/11 10:36
27	T1.102011.103947	L11100292-45	75246-C0010	1.018/50	5		10/20/11 10:39
28	T1.102011.104328	L11100292-46	75246-C0011	1.011/50	5		10/20/11 10:43
29	T1.102011.104705	L11100292-47	75246-C0012	1.001/50	5		10/20/11 10:47
30	T1.102011.105043	L11100292-48	75246-C0013	1.003/50	5		10/20/11 10:50
31	T1.102011.105511	L11100293-01	75246-C0014	1.001/50	5		10/20/11 10:55
32	T1.102011.105847	L11100293-02	75246-C0015	1.013/50	5		10/20/11 10:58
33	T1.102011.110222	L11100293-03	75246-C0016	1.003/50	5		10/20/11 11:02
34	T1.102011.110603	WG379768-14	CCV		1		10/20/11 11:06

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Shari L. Bahgat



Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO1 Dataset: 102011.1R
 Analyst1: PDM Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 39380

Calibration Std: STD47754 ICV Std: STD47751 Post Spike: STD45521
 ICSA: STD48048 ICSAB: STD48049 Int. Std: STD48022
 CCV: STD48021 LLCCV: _____

379620,379621,379688,379537,379540

Workgroups:

Comments: Sequences 144 through 153 and 168 through 307 were not reported due to CCV failures.

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
35	T1.102011.110932	WG379768-15	CCB		1		10/20/11 11:09
36	T1.102011.111324	L11100293-04	75246-C0017	1.005/50	5		10/20/11 11:13
37	T1.102011.111701	L11100293-05	75246-C0018	1.003/50	5		10/20/11 11:17
38	T1.102011.112041	L11100434-19	DE-32C-10102011	1.369/50	1		10/20/11 11:20
39	T1.102011.112421	L11100434-23	DE-32E-10102011	1.327/50	1		10/20/11 11:24
40	T1.102011.112802	L11100434-24	DE-33A-10102011	1.362/50	1		10/20/11 11:28
41	T1.102011.113143	L11100434-25	DE-33B-10102011	1.3/50	1		10/20/11 11:31
42	T1.102011.113523	L11100434-26	DE-33C-10102011	1.356/50	1		10/20/11 11:35
43	T1.102011.113908	WG379768-16	CCV		1		10/20/11 11:39
44	T1.102011.114237	WG379768-17	CCB		1		10/20/11 11:42
45	T1.102011.114623	WG379226-02	Method/Prep Blank	1/50	1		10/20/11 11:46
46	T1.102011.115005	WG379226-03	Laboratory Control S	1/50	1		10/20/11 11:50
47	T1.102011.115345	L11100480-23	10246-C0021	1.32/50	1		10/20/11 11:53
48	T1.102011.115725	WG379621-01	Post Digestion Spike		1	L11100480-23	10/20/11 11:57
49	T1.102011.120107	WG379621-02	Serial Dilution		5	L11100480-23	10/20/11 12:01
50	T1.102011.120443	WG379621-02	Serial Dilution		25	L11100480-23	10/20/11 12:04
51	T1.102011.120822	L11100480-24	10246-C0022	1.388/50	1		10/20/11 12:08
52	T1.102011.121153	L11100480-25	10246-C0023	1.461/50	1		10/20/11 12:11
53	T1.102011.121525	L11100480-26	10246-C0024	1.435/50	1		10/20/11 12:15
54	T1.102011.121856	L11100480-27	10246-C0025	1.407/50	1		10/20/11 12:18
55	T1.102011.122240	WG379768-18	CCV		1		10/20/11 12:22
56	T1.102011.122607	WG379768-19	CCB		1		10/20/11 12:26
57	T1.102011.122954	L11100480-28	10246-C0026	1.444/50	1		10/20/11 12:29
58	T1.102011.123333	L11100480-29	10246-C0027	1.399/50	1		10/20/11 12:33
59	T1.102011.123704	L11100480-30	10246-C0028	1.36/50	1		10/20/11 12:37
60	T1.102011.124036	L11100480-31	10246-C0029	1.339/50	1		10/20/11 12:40
61	T1.102011.124407	L11100480-32	10246-C0030	1.42/50	1		10/20/11 12:44
62	T1.102011.124740	L11100480-33	10246-C0031	1.318/50	1		10/20/11 12:47
63	T1.102011.125129	L11100480-34	10246-C0032	1.312/50	1		10/20/11 12:51
64	T1.102011.125518	L11100480-35	10246-C0033	1.472/50	1		10/20/11 12:55
65	T1.102011.125850	L11100480-36	10246-C0034	1.43/50	1		10/20/11 12:58
66	T1.102011.130222	L11100480-37	10246-C0035	1.448/50	1		10/20/11 13:02
67	T1.102011.130622	WG379768-20	CCV		1		10/20/11 13:06
68	T1.102011.130950	WG379768-21	CCB		1		10/20/11 13:09

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO1 Dataset: 102011.1R
 Analyst1: PDM Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 39380

Calibration Std: STD47754 ICV Std: STD47751 Post Spike: STD45521
 ICSA: STD48048 ICSAB: STD48049 Int. Std: STD48022
 CCV: STD48021 LLCCV: _____

379620,379621,379688,379537,379540

Workgroups:

Comments: Sequences 144 through 153 and 168 through 307 were not reported due to CCV failures.

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
69	T1.102011.131336	L11100480-38	10246-C0036	1.43/50	1		10/20/11 13:13
70	T1.102011.131708	L11100480-39	10246-C0037	1.403/50	1		10/20/11 13:17
71	T1.102011.132049	L11100480-40	10246-C0038	1.375/50	1		10/20/11 13:20
72	T1.102011.132435	L11100480-41	10246-C0039	1.387/50	1		10/20/11 13:24
73	T1.102011.132814	WG379226-01	Reference Sample		1	L11100480-42	10/20/11 13:28
74	T1.102011.133146	WG379226-04	Matrix Spike	1.335/50	1	L11100480-42	10/20/11 13:31
75	T1.102011.133523	WG379226-05	Matrix Spike Duplica	1.335/50	1	L11100480-42	10/20/11 13:35
76	T1.102011.133910	WG379768-22	CCV		1		10/20/11 13:39
77	T1.102011.134238	WG379768-23	CCB		1		10/20/11 13:42
78	T1.102011.134623	WG379312-02	Method/Prep Blank	1/50	1		10/20/11 13:46
79	T1.102011.135006	WG379312-03	Laboratory Control S	1/50	1		10/20/11 13:50
80	T1.102011.135346	L11090800-01	75764-C0008	1.01/50	5		10/20/11 13:53
81	T1.102011.135719	WG379312-01	Reference Sample		1	L11100483-19	10/20/11 13:57
82	T1.102011.140051	WG379312-04	Matrix Spike	1.385/50	1	L11100483-19	10/20/11 14:00
83	T1.102011.140422	WG379312-05	Matrix Spike Duplica	1.385/50	1	L11100483-19	10/20/11 14:04
84	T1.102011.140754	L11100483-23	10823-C0031	1.411/50	1		10/20/11 14:07
85	T1.102011.141125	WG379688-01	Post Digestion Spike		1	L11100483-23	10/20/11 14:11
86	T1.102011.141454	WG379688-02	Serial Dilution		5	L11100483-23	10/20/11 14:14
87	T1.102011.141830	WG379688-02	Serial Dilution		25	L11100483-23	10/20/11 14:18
88	T1.102011.142218	WG379768-24	CCV		1		10/20/11 14:22
89	T1.102011.142546	WG379768-25	CCB		1		10/20/11 14:25
90	T1.102011.142933	L11100483-24	10823-C0032	1.306/50	1		10/20/11 14:29
91	T1.102011.143305	L11100483-25	10823-C0033	1.397/50	1		10/20/11 14:33
92	T1.102011.143636	L11100483-26	10823-C0034	1.424/50	1		10/20/11 14:36
93	T1.102011.144016	L11100483-27	10823-C0035	1.341/50	1		10/20/11 14:40
94	T1.102011.144348	L11100483-28	10823-C0036	1.472/50	1		10/20/11 14:43
95	T1.102011.144729	L11100483-29	10823-C0037	1.324/50	1		10/20/11 14:47
96	T1.102011.145119	L11100483-30	10823-C0038	1.363/50	1		10/20/11 14:51
97	T1.102011.145502	L11100483-31	10823-C0039	1.389/50	1		10/20/11 14:55
98	T1.102011.145851	L11100483-32	10823-C0040	1.425/50	1		10/20/11 14:58
99	T1.102011.150240	L11100483-33	10823-C0041	1.342/50	1		10/20/11 15:02
100	T1.102011.150616	WG379768-26	CCV		1		10/20/11 15:06
101	T1.102011.150944	WG379768-27	CCB		1		10/20/11 15:09
102	T1.102011.151332	L11100483-34	10823-C0042	1.404/50	1		10/20/11 15:13

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO1 Dataset: 102011.1R
 Analyst1: PDM Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 39380

Calibration Std: STD47754 ICV Std: STD47751 Post Spike: STD45521
 ICSA: STD48048 ICSAB: STD48049 Int. Std: STD48022
 CCV: STD48021 LLCCV: _____

379620,379621,379688,379537,379540

Workgroups:

Comments: Sequences 144 through 153 and 168 through 307 were not reported due to CCV failures.

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
103	T1.102011.151729	L11100483-35	10823-C0043	1.418/50	1		10/20/11 15:17
104	T1.102011.152107	L11100483-36	10823-C0044	1.367/50	1		10/20/11 15:21
105	T1.102011.152436	L11100483-37	10823-C0045	1.464/50	1		10/20/11 15:24
106	T1.102011.152814	L11100483-38	10823-C0046	1.385/50	1		10/20/11 15:28
107	T1.102011.153144	L11100483-39	11652-C0001	1.437/50	1		10/20/11 15:31
108	T1.102011.153520	L11100483-40	11652-C0002	1.448/50	1		10/20/11 15:35
109	T1.102011.153903	WG379768-28	CCV		1		10/20/11 15:39
110	T1.102011.154228	WG379768-29	CCB		1		10/20/11 15:42
111	T1.102011.154607	WG379012-02	Method/Prep Blank	1/50	1		10/20/11 15:46
112	T1.102011.154946	WG379012-03	Laboratory Control S	1/50	1		10/20/11 15:49
113	T1.102011.155322	L11100290-05	11452-C0004	1.038/50	5		10/20/11 15:53
114	T1.102011.155701	WG379537-01	Post Digestion Spike		5	L11100290-05	10/20/11 15:57
115	T1.102011.160032	WG379537-02	Serial Dilution		25	L11100290-05	10/20/11 16:00
116	T1.102011.160409	WG379537-02	Serial Dilution		125	L11100290-05	10/20/11 16:04
117	T1.102011.160748	L11100290-06	11452-C0005	1.015/50	5		10/20/11 16:07
118	T1.102011.161120	L11100290-07	11452-C0006	1.04/50	5		10/20/11 16:11
119	T1.102011.161454	L11100290-08	11452-C0007	1.05/50	5		10/20/11 16:14
120	T1.102011.161826	L11100290-09	11452-G0001	1.044/50	5		10/20/11 16:18
121	T1.102011.162200	WG379768-30	CCV		1		10/20/11 16:22
122	T1.102011.162524	WG379768-31	CCB		1		10/20/11 16:25
123	T1.102011.162903	L11100290-10	11452-G0002	1.008/50	5		10/20/11 16:29
124	T1.102011.163237	L11100290-11	11452-G0003	1.024/50	5		10/20/11 16:32
125	T1.102011.163610	L11100290-12	11452-G0004	1.008/50	5		10/20/11 16:36
126	T1.102011.163950	L11100290-13	12611-C0007	1.037/50	5		10/20/11 16:39
127	T1.102011.164321	L11100290-14	12611-C0009	1.019/50	5		10/20/11 16:43
128	T1.102011.164654	L11100290-15	12619-C0019	1.001/50	5		10/20/11 16:46
129	T1.102011.165027	WG379012-01	Reference Sample		5	L11100290-16	10/20/11 16:50
130	T1.102011.165358	WG379012-04	Matrix Spike	1.042/50	5	L11100290-16	10/20/11 16:53
131	T1.102011.165730	WG379012-05	Matrix Spike Duplica	1.042/50	5	L11100290-16	10/20/11 16:57
132	T1.102011.170100	L11100290-19	12619-C0023	1.046/50	5		10/20/11 17:01
133	T1.102011.170429	WG379768-32	CCV		1		10/20/11 17:04
134	T1.102011.170754	WG379768-33	CCB		1		10/20/11 17:07
135	T1.102011.171132	L11100290-20	12619-C0027	1.013/50	5		10/20/11 17:11
136	T1.102011.171503	L11100290-21	13046-C0013	1.021/50	5		10/20/11 17:15

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO1 Dataset: 102011.1R
 Analyst1: PDM Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 39380

Calibration Std: STD47754 ICV Std: STD47751 Post Spike: STD45521
 ICSA: STD48048 ICSAB: STD48049 Int. Std: STD48022
 CCV: STD48021 LLCCV: _____

379620,379621,379688,379537,379540

Workgroups:

Comments: Sequences 144 through 153 and 168 through 307 were not reported due to CCV failures.

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
137	T1.102011.171833	L11100290-22	13058-C0009	1.006/50	5		10/20/11 17:18
138	T1.102011.172204	L11100290-23	13510-C0005	1.029/50	5		10/20/11 17:22
139	T1.102011.172535	L11100290-24	13602-C0016	1.026/50	5		10/20/11 17:25
140	T1.102011.172906	L11100290-25	13602-C0018	1.026/50	5		10/20/11 17:29
141	T1.102011.173235	L11100290-26	13616-C0001	1.049/50	5		10/20/11 17:32
142	T1.102011.173606	WG379768-34	CCV		1		10/20/11 17:36
143	T1.102011.173930	WG379768-35	CCB		1		10/20/11 17:39
144	T1.102011.174309	L11100347-24	30999-C0011		1		10/20/11 17:43
145	T1.102011.174645	WG379400-01	Post Digestion Spike		1	L11100347-25	10/20/11 17:46
146	T1.102011.175020	WG379400-02	Serial Dilution		5	L11100347-25	10/20/11 17:50
147	T1.102011.175355	WG379400-02	Serial Dilution		25	L11100347-25	10/20/11 17:53
148	T1.102011.175732	L11100290-34	70211-C0001		2		10/20/11 17:57
149	T1.102011.180102	L11100290-36	70211-C0003		2		10/20/11 18:01
150	T1.102011.180440	L11100290-38	70212-C0001		2		10/20/11 18:04
151	T1.102011.180808	L11100291-05	75242-C0005		2		10/20/11 18:08
152	T1.102011.181138	L11100291-06	75242-C0006		2		10/20/11 18:11
153	T1.102011.181508	L11100291-12	75242-C0012		2		10/20/11 18:15
154	T1.102011.181839	WG379768-36	CCV		1		10/20/11 18:18
155	T1.102011.182202	WG379768-37	CCB		1		10/20/11 18:22
156	T1.102011.182540	L11100291-19	75243-C0002	1.048/50	2		10/20/11 18:25
157	T1.102011.182910	WG379540-01	Post Digestion Spike		2	L11100291-19	10/20/11 18:29
158	T1.102011.183236	WG379540-02	Serial Dilution		10	L11100291-19	10/20/11 18:32
159	T1.102011.183611	L11100291-25	75243-C0006	1.021/50	2		10/20/11 18:36
160	T1.102011.183941	L11100291-27	75243-C0008	1.035/50	2		10/20/11 18:39
161	T1.102011.184311	L11100291-29	75243-C0010	1.02/50	2		10/20/11 18:43
162	T1.102011.184640	L11100291-31	75243-C0012	1.004/50	1		10/20/11 18:46
163	T1.102011.185010	L11100291-33	75243-C0014	1.039/50	2		10/20/11 18:50
164	T1.102011.185339	L11100291-35	75243-C0016	1.01/50	2		10/20/11 18:53
165	T1.102011.185709	L11100291-37	75244-C0002	1.003/50	2		10/20/11 18:57
166	T1.102011.190039	WG379768-38	CCV		1		10/20/11 19:00
167	T1.102011.190403	WG379768-39	CCB		1		10/20/11 19:04
168	T1.102011.190742	L11100291-38	75244-C0003		2		10/20/11 19:07
169	T1.102011.191117	L11100291-39	75244-C0004		2		10/20/11 19:11
170	T1.102011.191448	L11100291-40	75244-C0005		2		10/20/11 19:14

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO1 Dataset: 102011.1R
 Analyst1: PDM Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 39380

Calibration Std: STD47754 ICV Std: STD47751 Post Spike: STD45521
 ICSA: STD48048 ICSAB: STD48049 Int. Std: STD48022
 CCV: STD48021 LLCCV: _____

379620,379621,379688,379537,379540

Workgroups:

Comments: Sequences 144 through 153 and 168 through 307 were not reported due to CCV failures.

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
171	T1.102011.191821	L11100292-27	75245-C0014		2		10/20/11 19:18
172	T1.102011.192151	L11100292-33	75245-C0020		2		10/20/11 19:21
173	T1.102011.192521	WG379768-40	CCV		1		10/20/11 19:25
174	T1.102011.192844	WG379768-41	CCB		1		10/20/11 19:28
175	T1.102011.193223	WG379315-02	Method/Prep Blank		1		10/20/11 19:32
176	T1.102011.193602	WG379315-03	Laboratory Control S		1		10/20/11 19:36
177	T1.102011.193938	L11100483-41	11652-C0003		1		10/20/11 19:39
178	T1.102011.194315	WG378702-01	Tune Info		1		10/20/11 19:43
179	T1.102011.194649	WG378702-02	CCV		5		10/20/11 19:46
180	T1.102011.195022	WG378702-02	CCV		25		10/20/11 19:50
181	T1.102011.195400	L11100483-42	11652-C0004		1		10/20/11 19:54
182	T1.102011.195740	L11100483-43	11652-C0005		1		10/20/11 19:57
183	T1.102011.200125	L11100483-44	11652-C0006		1		10/20/11 20:01
184	T1.102011.200453	L11100483-45	11652-C0007		1		10/20/11 20:04
185	T1.102011.200824	WG379768-42	CCV		1		10/20/11 20:08
186	T1.102011.201147	WG379768-43	CCB		1		10/20/11 20:11
187	T1.102011.201526	L11100483-46	11652-C0008		1		10/20/11 20:15
188	T1.102011.201854	WG379315-01	Reference Sample		1	L11100483-47	10/20/11 20:18
189	T1.102011.202222	WG379315-04	Matrix Spike		1	L11100483-47	10/20/11 20:22
190	T1.102011.202550	WG379315-05	Matrix Spike Duplica		1	L11100483-47	10/20/11 20:25
191	T1.102011.202926	L11100484-02	11652-C0010		1		10/20/11 20:29
192	T1.102011.203255	L11100484-03	11652-C0011		1		10/20/11 20:32
193	T1.102011.203631	L11100484-04	11652-C0012		1		10/20/11 20:36
194	T1.102011.204010	L11100484-05	11652-C0013		1		10/20/11 20:40
195	T1.102011.204348	L11100484-06	11652-C0014		1		10/20/11 20:43
196	T1.102011.204724	L11100484-07	11652-C0015		1		10/20/11 20:47
197	T1.102011.205101	WG379768-44	CCV		1		10/20/11 20:51
198	T1.102011.205424	WG379768-45	CCB		1		10/20/11 20:54
199	T1.102011.205804	L11100484-11	11652-C0017		1		10/20/11 20:58
200	T1.102011.210132	L11100484-12	11652-C0018		1		10/20/11 21:01
201	T1.102011.210508	L11100484-13	11652-C0019		1		10/20/11 21:05
202	T1.102011.210836	L11100484-14	11652-C0020		1		10/20/11 21:08
203	T1.102011.211204	L11100484-15	11652-C0021		1		10/20/11 21:12
204	T1.102011.211533	L11100484-16	11652-C0022		1		10/20/11 21:15

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO1 Dataset: 102011.1R
 Analyst1: PDM Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 39380

Calibration Std: STD47754 ICV Std: STD47751 Post Spike: STD45521
 ICSA: STD48048 ICSAB: STD48049 Int. Std: STD48022
 CCV: STD48021 LLCCV: _____

379620,379621,379688,379537,379540

Workgroups:

Comments: Sequences 144 through 153 and 168 through 307 were not reported due to CCV failures.

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
205	T1.102011.211909	L11100484-17	11652-C0023		1		10/20/11 21:19
206	T1.102011.212239	WG379768-46	CCV		1		10/20/11 21:22
207	T1.102011.212602	WG379768-47	CCB		1		10/20/11 21:26
208	T1.102011.212941	WG379321-02	Method/Prep Blank		1		10/20/11 21:29
209	T1.102011.213320	WG379321-03	Laboratory Control S		1		10/20/11 21:33
210	T1.102011.213657	WG379321-01	Reference Sample		1	L11100484-08	10/20/11 21:36
211	T1.102011.214034	WG379321-04	Matrix Spike		1	L11100484-08	10/20/11 21:40
212	T1.102011.214411	WG379321-05	Matrix Spike Duplica		1	L11100484-08	10/20/11 21:44
213	T1.102011.214750	L11100484-18	11652-C0024		1		10/20/11 21:47
214	T1.102011.215130	L11100484-19	11652-C0025		1		10/20/11 21:51
215	T1.102011.215508	WG379703-01	Post Digestion Spike		1	L11100484-18	10/20/11 21:55
216	T1.102011.215839	WG379703-02	Serial Dilution		5	L11100484-18	10/20/11 21:58
217	T1.102011.220211	WG379703-02	Serial Dilution		25	L11100484-18	10/20/11 22:02
218	T1.102011.220550	WG379768-48	CCV		1		10/20/11 22:05
219	T1.102011.220913	WG379768-49	CCB		1		10/20/11 22:09
220	T1.102011.221253	L11100484-20	11652-C0026		1		10/20/11 22:12
221	T1.102011.221629	L11100484-21	11652-C0027		1		10/20/11 22:16
222	T1.102011.221957	L11100484-22	11652-C0028		1		10/20/11 22:19
223	T1.102011.222334	L11100484-23	11652-C0029		1		10/20/11 22:23
224	T1.102011.222703	L11100484-24	11652-C0030		1		10/20/11 22:27
225	T1.102011.223036	L11100484-25	11652-C0031		1		10/20/11 22:30
226	T1.102011.223412	L11100484-26	11652-C0032		1		10/20/11 22:34
227	T1.102011.223755	L11100484-27	11652-C0033		1		10/20/11 22:37
228	T1.102011.224125	L11100484-28	11652-C0034		1		10/20/11 22:41
229	T1.102011.224453	L11100484-29	11652-C0035		1		10/20/11 22:44
230	T1.102011.224821	WG379768-50	CCV		1		10/20/11 22:48
231	T1.102011.225145	WG379768-51	CCB		1		10/20/11 22:51
232	T1.102011.225524	L11100484-30	11652-C0036		1		10/20/11 22:55
233	T1.102011.225901	L11100484-31	11652-C0037		1		10/20/11 22:59
234	T1.102011.230237	L11100484-32	11652-C0038		1		10/20/11 23:02
235	T1.102011.230615	L11100484-33	11652-C0039		1		10/20/11 23:06
236	T1.102011.231018	L11100484-34	11652-C0040		1		10/20/11 23:10
237	T1.102011.231405	L11100484-35	11652-C0041		1		10/20/11 23:14
238	T1.102011.231734	L11100484-36	11652-C0042		1		10/20/11 23:17

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO1 Dataset: 102011.1R
 Analyst1: PDM Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 39380

Calibration Std: STD47754 ICV Std: STD47751 Post Spike: STD45521
 ICSA: STD48048 ICSAB: STD48049 Int. Std: STD48022
 CCV: STD48021 LLCCV: _____

379620,379621,379688,379537,379540

Workgroups:

Comments: Sequences 144 through 153 and 168 through 307 were not reported due to CCV failures.

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
239	T1.102011.232105	WG379768-52	CCV		1		10/20/11 23:21
240	T1.102011.232428	WG379768-53	CCB		1		10/20/11 23:24
241	T1.102011.232807	WG379329-02	Reference Sample		1	L11100485-10	10/20/11 23:28
242	T1.102011.233147	WG379329-03	Method/Prep Blank		1		10/20/11 23:31
243	T1.102011.233523	L11100484-37	11652-C0043		1		10/20/11 23:35
244	T1.102011.233904	WG379704-01	Post Digestion Spike		1	L11100484-38	10/20/11 23:39
245	T1.102011.234238	WG379704-02	Serial Dilution		5	L11100484-38	10/20/11 23:42
246	T1.102011.234611	WG379704-02	Serial Dilution		25	L11100484-38	10/20/11 23:46
247	T1.102011.234949	L11100484-38	11652-C0044		1		10/20/11 23:49
248	T1.102011.235327	L11100484-39	11652-C0045		1		10/20/11 23:53
249	T1.102011.235703	L11100484-40	11652-C0046		1		10/20/11 23:57
250	T1.102111.000043	L11100484-41	11652-C0047		1	WG379329-01	10/21/11 00:00
251	T1.102111.000411	WG379768-54	CCV		1		10/21/11 00:04
252	T1.102111.000735	WG379768-55	CCB		1		10/21/11 00:07
253	T1.102111.001114	L11100484-42	11652-C0047-MS		1		10/21/11 00:11
254	T1.102111.001442	L11100484-43	11652-C0047-MSD		1		10/21/11 00:14
255	T1.102111.001818	L11100484-44	11652-C0048		1		10/21/11 00:18
256	T1.102111.002156	L11100484-45	11652-C0049		1		10/21/11 00:21
257	T1.102111.002534	L11100484-46	11652-C0050		1		10/21/11 00:25
258	T1.102111.002917	L11100484-47	11652-C0051		1		10/21/11 00:29
259	T1.102111.003254	L11100484-48	11652-C0052		1		10/21/11 00:32
260	T1.102111.003630	L11100485-01	11652-C0053		1		10/21/11 00:36
261	T1.102111.004016	L11100485-02	11652-C0054		1		10/21/11 00:40
262	T1.102111.004401	L11100485-03	11652-C0055		1		10/21/11 00:44
263	T1.102111.004747	WG379768-56	CCV		1		10/21/11 00:47
264	T1.102111.005111	WG379768-57	CCB		1		10/21/11 00:51
265	T1.102111.005450	L11100485-04	11652-C0056		1		10/21/11 00:54
266	T1.102111.005827	L11100485-05	11652-C0057		1		10/21/11 00:58
267	T1.102111.010213	L11100485-06	11652-C0058		1		10/21/11 01:02
268	T1.102111.010555	L11100485-07	11652-C0059		1		10/21/11 01:05
269	T1.102111.010941	WG379329-01	Reference Sample		1	L11100484-41	10/21/11 01:09
270	T1.102111.011318	WG379329-04	Laboratory Control S		1		10/21/11 01:13
271	T1.102111.011656	WG379329-05	Matrix Spike		1	L11100484-41	10/21/11 01:16
272	T1.102111.012033	WG379768-58	CCV		1		10/21/11 01:20

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO1 Dataset: 102011.1R
 Analyst1: PDM Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 39380

Calibration Std: STD47754 ICV Std: STD47751 Post Spike: STD45521
 ICSA: STD48048 ICSAB: STD48049 Int. Std: STD48022
 CCV: STD48021 LLCCV: _____

379620,379621,379688,379537,379540

Workgroups:

Comments: Sequences 144 through 153 and 168 through 307 were not reported due to CCV failures.

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
273	T1.102111.012357	WG379768-59	CCB		1		10/21/11 01:23
274	T1.102111.012737	WG379007-02	Method/Prep Blank		1		10/21/11 01:27
275	T1.102111.013116	WG379007-03	Laboratory Control S		1		10/21/11 01:31
276	T1.102111.013443	L11100263-22	TS737-SS-3C		5		10/21/11 01:34
277	T1.102111.013816	WG379524-01	Post Digestion Spike		5	L11100263-22	10/21/11 01:38
278	T1.102111.014143	WG379524-02	Serial Dilution		25	L11100263-22	10/21/11 01:41
279	T1.102111.014521	WG379524-02	Serial Dilution		125	L11100263-22	10/21/11 01:45
280	T1.102111.014900	L11100263-23	TS737-SS-4C		5		10/21/11 01:49
281	T1.102111.015233	L11100263-24	TS737-SS-5C		5		10/21/11 01:52
282	T1.102111.015604	L11100263-25	TS737-SS-6C		5		10/21/11 01:56
283	T1.102111.015936	L11100263-26	TS737-SS-7C		5		10/21/11 01:59
284	T1.102111.020311	WG379768-60	CCV		1		10/21/11 02:03
285	T1.102111.020635	WG379768-61	CCB		1		10/21/11 02:06
286	T1.102111.021015	L11100263-28	TS737-SS-9C		5		10/21/11 02:10
287	T1.102111.021347	L11100263-29	TS737-SS-10C		5		10/21/11 02:13
288	T1.102111.021718	L11100263-30	TS737-SS-11C		5		10/21/11 02:17
289	T1.102111.022051	L11100263-32	TS737-SS-13C		5		10/21/11 02:20
290	T1.102111.022423	L11100263-33	TS737-SS-14C		5		10/21/11 02:24
291	T1.102111.022756	L11100263-34	TS737-SS-15C		5		10/21/11 02:27
292	T1.102111.023126	L11100263-35	TS737-SS-16C		5		10/21/11 02:31
293	T1.102111.023503	L11100263-36	TS737-SS-17C		5		10/21/11 02:35
294	T1.102111.023835	L11100263-37	TS737-SS-18C		5	WG378510-01	10/21/11 02:38
295	T1.102111.024207	L11100290-02	11452-C0001		5		10/21/11 02:42
296	T1.102111.024549	WG379768-62	CCV		1		10/21/11 02:45
297	T1.102111.024913	WG379768-63	CCB		1		10/21/11 02:49
298	T1.102111.025254	L11100290-03	11452-C0002		5		10/21/11 02:52
299	T1.102111.025631	L11100290-04	11452-C0003		5		10/21/11 02:56
300	T1.102111.030003	WG379007-01	Reference Sample		1	L11100402-02	10/21/11 03:00
301	T1.102111.030340	WG379007-04	Matrix Spike		1	L11100402-02	10/21/11 03:03
302	T1.102111.030721	WG379007-05	Matrix Spike Duplica		1	L11100402-02	10/21/11 03:07
303	T1.102111.031104	WG379768-64	LRC		1		10/21/11 03:11
304	T1.102111.031448	RINSE	RINSE		1		10/21/11 03:14
305	T1.102111.031828	RINSE	RINSE		1		10/21/11 03:18
306	T1.102111.032207	WG379768-65	CCV		1		10/21/11 03:22

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Microbac Laboratories Inc.

Instrument Run Log

Instrument: ICP-THERMO1 Dataset: 102011.1R
 Analyst1: PDM Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 39380

Calibration Std: STD47754 ICV Std: STD47751 Post Spike: STD45521
 ICSA: STD48048 ICSAB: STD48049 Int. Std: STD48022
 CCV: STD48021 LLCCV: _____

379620,379621,379688,379537,379540

Workgroups:

Comments: Sequences 144 through 153 and 168 through 307 were not reported due to CCV failures.

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
307	T1.102111.032532	WG379768-66	CCB		1		10/21/11 03:25

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO1 Dataset: 102111.1R
 Analyst1: PDM Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 39395

Calibration Std: STD47754 ICV Std: STD48173 Post Spike: STD45521
 ICSA: STD48178 ICSAB: STD48172 Int. Std: STD48022
 CCV: STD48175 LLCCV: _____

379617,379540,379547,379551,379524,379599,379702,379703

Workgroups:

Comments: Additional Workgroup:379704,379400,379537,379538,379539,379620,379821,379822,379823

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
1	T1.102111.085130	WG379827-01	Calibration Point		1		10/21/11 08:51
2	T1.102111.085532	WG379827-02	Calibration Point		1		10/21/11 08:55
3	T1.102111.085912	WG379827-03	Calibration Point		1		10/21/11 08:59
4	T1.102111.090253	WG379827-04	Calibration Point		1		10/21/11 09:02
5	T1.102111.090618	WG379827-05	Calibration Point		1		10/21/11 09:06
6	T1.102111.090945	WG379827-06	Initial Calibration Verification		1		10/21/11 09:09
7	T1.102111.091310	WG379827-07	Initial Calib Blank		1		10/21/11 09:13
8	T1.102111.091650	WG379827-08	Interference Check		1		10/21/11 09:16
9	T1.102111.092038	WG379827-09	Interference Check		1		10/21/11 09:20
10	T1.102111.092418	WG379827-10	CCV		1		10/21/11 09:24
11	T1.102111.092745	WG379827-11	CCB		1		10/21/11 09:27
12	T1.102111.093526	WG379445-02	Method/Prep Blank	1/50	1		10/21/11 09:35
13	T1.102111.093907	WG379445-03	Laboratory Control S	1/50	1		10/21/11 09:39
14	T1.102111.094239	L11100005-01	MDL-1	1/50	1		10/21/11 09:42
15	T1.102111.094621	L11100005-05	MDL-5	1/50	1		10/21/11 09:46
16	T1.102111.095002	L11100007-01	LOQ-1	1/50	1		10/21/11 09:50
17	T1.102111.095343	L11100007-05	LOQ-5	1/50	1		10/21/11 09:53
18	T1.102111.095724	WG379827-12	CCV		1		10/21/11 09:57
19	T1.102111.100050	WG379827-13	CCB		1		10/21/11 10:00
20	T1.102111.100430	WG379827-14	Linear Range Check		1		10/21/11 10:04
21	T1.102111.100903	WG379827-27	LRC		1		10/21/11 10:09
22	T1.102111.101243	L11100291-38	75244-C0003	1.015/50	2		10/21/11 10:12
23	T1.102111.101617	L11100291-39	75244-C0004	1.028/50	2		10/21/11 10:16
24	T1.102111.101948	L11100291-40	75244-C0005	1.006/50	2		10/21/11 10:19
25	T1.102111.110953	WG379827-14	Linear Range Check		1		10/21/11 11:09
26	T1.102111.111746	WG379827-15	CCV		1		10/21/11 11:17
27	T1.102111.112113	WG379827-16	CCB		1		10/21/11 11:21
28	T1.102111.112454	L11100291-41	75244-C0006	1.024/50	2		10/21/11 11:24
29	T1.102111.112826	WG379547-01	Post Digestion Spike		2	L11100291-41	10/21/11 11:28
30	T1.102111.113155	WG379547-02	Serial Dilution		10	L11100291-41	10/21/11 11:31
31	T1.102111.113604	L11100291-42	75244-C0007	1.001/50	2		10/21/11 11:36
32	T1.102111.113949	L11100291-43	75244-C0008	1.001/50	2		10/21/11 11:39
33	T1.102111.114323	L11100291-45	75244-C0010	1.005/50	1		10/21/11 11:43
34	T1.102111.114654	L11100291-47	75244-C0012	1.006/50	2		10/21/11 11:46

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO1 Dataset: 102111.1R
 Analyst1: PDM Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 39395

Calibration Std: STD47754 ICV Std: STD48173 Post Spike: STD45521
 ICSA: STD48178 ICSAB: STD48172 Int. Std: STD48022
 CCV: STD48175 LLCCV: _____

379617,379540,379547,379551,379524,379599,379702,379703

Workgroups:

Comments: Additional Workgroup:379704,379400,379537,379538,379539,379620,379821,379822,379823

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
35	T1.102111.115026	L11100291-48	75244-C0013	1.01/50	2		10/21/11 11:50
36	T1.102111.115357	WG379167-01	Reference Sample		1	L11100292-01	10/21/11 11:53
37	T1.102111.115732	WG379167-04	Matrix Spike	1.031/50	1	L11100292-01	10/21/11 11:57
38	T1.102111.120111	WG379827-17	CCV		1		10/21/11 12:01
39	T1.102111.120436	WG379827-18	CCB		1		10/21/11 12:04
40	T1.102111.120817	WG379167-05	Matrix Spike Duplica	1.031/50	1	L11100292-01	10/21/11 12:08
41	T1.102111.121153	L11100292-04	75244-C0018	1.005/50	2		10/21/11 12:11
42	T1.102111.121524	L11100292-06	75244-C0020	1.047/50	2		10/21/11 12:15
43	T1.102111.121904	L11100292-07	75244-C0021	1.015/50	2		10/21/11 12:19
44	T1.102111.122245	L11100292-08	75244-C0022	1.047/50	2		10/21/11 12:22
45	T1.102111.122618	L11100292-10	75244-C0024	1.018/50	2		10/21/11 12:26
46	T1.102111.122951	L11100292-12	75244-C0026	1/50	2		10/21/11 12:29
47	T1.102111.123323	L11100292-27	75245-C0014	1.019/50	2		10/21/11 12:33
48	T1.102111.123658	L11100292-33	75245-C0020	1.013/50	2		10/21/11 12:36
49	T1.102111.124030	WG379827-19	CCV		1		10/21/11 12:40
50	T1.102111.124401	WG379827-20	CCB		1		10/21/11 12:44
51	T1.102111.124746	WG379007-02	Method/Prep Blank	1/50	1		10/21/11 12:47
52	T1.102111.125127	WG379007-03	Laboratory Control S	1/50	1		10/21/11 12:51
53	T1.102111.125455	WG379007-01	Reference Sample		1	L11100402-02	10/21/11 12:54
54	T1.102111.125833	WG379007-04	Matrix Spike	1.305/50	1	L11100402-02	10/21/11 12:58
55	T1.102111.130216	WG379007-05	Matrix Spike Duplica	1.305/50	1	L11100402-02	10/21/11 13:02
56	T1.102111.130557	L11100263-22	TS737-SS-3C	1.322/50	10		10/21/11 13:05
57	T1.102111.130933	WG379524-01	Post Digestion Spike		10	L11100263-22	10/21/11 13:09
58	T1.102111.131301	WG379524-02	Serial Dilution		50	L11100263-22	10/21/11 13:13
59	T1.102111.131640	WG379827-21	CCV		1		10/21/11 13:16
60	T1.102111.132006	WG379827-22	CCB		1		10/21/11 13:20
61	T1.102111.132346	L11100263-23	TS737-SS-4C	1.303/50	10		10/21/11 13:23
62	T1.102111.132723	L11100263-24	TS737-SS-5C	1.377/50	10		10/21/11 13:27
63	T1.102111.133058	L11100263-25	TS737-SS-6C	1.32/50	10		10/21/11 13:30
64	T1.102111.133434	L11100263-26	TS737-SS-7C	1.316/50	10		10/21/11 13:34
65	T1.102111.133811	L11100263-27	TS737-SS-8C	1.416/50	10		10/21/11 13:38
66	T1.102111.134147	L11100263-28	TS737-SS-9C	1.323/50	10		10/21/11 13:41
67	T1.102111.134523	L11100263-29	TS737-SS-10C	1.351/50	10		10/21/11 13:45
68	T1.102111.134859	L11100263-30	TS737-SS-11C	1.35/50	10		10/21/11 13:48

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Maren Beery



Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO1 Dataset: 102111.1R
 Analyst1: PDM Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 39395

Calibration Std: STD47754 ICV Std: STD48173 Post Spike: STD45521
 ICSA: STD48178 ICSAB: STD48172 Int. Std: STD48022
 CCV: STD48175 LLCCV: _____

379617,379540,379547,379551,379524,379599,379702,379703

Workgroups:

Comments: Additional Workgroup:379704,379400,379537,379538,379539,379620,379821,379822,379823

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
69	T1.102111.135232	L11100263-32	TS737-SS-13C	1.361/50	10		10/21/11 13:52
70	T1.102111.135608	L11100263-33	TS737-SS-14C	1.372/50	10		10/21/11 13:56
71	T1.102111.135943	WG379827-23	CCV		1		10/21/11 13:59
72	T1.102111.140309	WG379827-24	CCB		1		10/21/11 14:03
73	T1.102111.140650	L11100263-34	TS737-SS-15C	1.333/50	10		10/21/11 14:06
74	T1.102111.141029	L11100263-35	TS737-SS-16C	1.341/50	10		10/21/11 14:10
75	T1.102111.141404	L11100263-36	TS737-SS-17C	1.351/50	10		10/21/11 14:14
76	T1.102111.141738	L11100290-02	11452-C0001	1.008/50	5		10/21/11 14:17
77	T1.102111.142127	L11100290-03	11452-C0002	1.012/50	5		10/21/11 14:21
78	T1.102111.142502	L11100290-04	11452-C0003	1.049/50	5		10/21/11 14:25
79	T1.102111.142837	WG379827-25	CCV		1		10/21/11 14:28
80	T1.102111.143204	WG379827-26	CCB		1		10/21/11 14:32
81	T1.102111.143545	WG378510-02	Method/Prep Blank	1/50	1		10/21/11 14:35
82	T1.102111.143926	WG378510-03	Laboratory Control S	1/50	1		10/21/11 14:39
83	T1.102111.144256	WG378510-01	Reference Sample		100	L11100263-37	10/21/11 14:42
84	T1.102111.144637	WG378599-03	Post Digestion Spike		100	L11100263-37	10/21/11 14:46
85	T1.102111.145006	WG378599-04	Serial Dilution		500	L11100263-37	10/21/11 14:50
86	T1.102111.145347	WG378510-04	Matrix Spike	1.356/50	100	L11100263-37	10/21/11 14:53
87	T1.102111.145727	WG378510-05	Matrix Spike Duplica	1.356/50	100	L11100263-37	10/21/11 14:57
88	T1.102111.150108	WG379827-28	CCV		1		10/21/11 15:01
89	T1.102111.150435	WG379827-29	CCB		1		10/21/11 15:04
90	T1.102111.150817	WG379315-02	Method/Prep Blank	1/50	1		10/21/11 15:08
91	T1.102111.151159	WG379315-03	Laboratory Control S	1/50	1		10/21/11 15:11
92	T1.102111.151540	L11100483-41	11652-C0003	1.39/50	1		10/21/11 15:15
93	T1.102111.151920	L11100483-42	11652-C0004	1.317/50	1		10/21/11 15:19
94	T1.102111.152259	WG379702-01	Post Digestion Spike		1	L11100483-42	10/21/11 15:22
95	T1.102111.152636	WG379702-02	Serial Dilution		5	L11100483-42	10/21/11 15:26
96	T1.102111.153011	WG379702-02	Serial Dilution		25	L11100483-42	10/21/11 15:30
97	T1.102111.153352	L11100483-43	11652-C0005	1.304/50	1		10/21/11 15:33
98	T1.102111.153741	L11100483-44	11652-C0006	1.324/50	1		10/21/11 15:37
99	T1.102111.154111	L11100483-45	11652-C0007	1.348/50	1		10/21/11 15:41
100	T1.102111.154440	WG379827-30	CCV		1		10/21/11 15:44
101	T1.102111.154806	WG379827-31	CCB		1		10/21/11 15:48
102	T1.102111.155147	L11100483-46	11652-C0008	1.343/50	1		10/21/11 15:51

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO1 Dataset: 102111.1R
 Analyst1: PDM Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 39395

Calibration Std: STD47754 ICV Std: STD48173 Post Spike: STD45521
 ICSA: STD48178 ICSAB: STD48172 Int. Std: STD48022
 CCV: STD48175 LLCCV: _____

379617,379540,379547,379551,379524,379599,379702,379703

Workgroups:

Comments: Additional Workgroup:379704,379400,379537,379538,379539,379620,379821,379822,379823

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
103	T1.102111.155517	WG379315-01	Reference Sample		1	L11100483-47	10/21/11 15:55
104	T1.102111.155847	WG379315-04	Matrix Spike	1.421/50	1	L11100483-47	10/21/11 15:58
105	T1.102111.160216	WG379315-05	Matrix Spike Duplica	1.421/50	1	L11100483-47	10/21/11 16:02
106	T1.102111.160555	L11100484-02	11652-C0010	1.356/50	1		10/21/11 16:05
107	T1.102111.160924	L11100484-03	11652-C0011	1.472/50	1		10/21/11 16:09
108	T1.102111.161302	L11100484-04	11652-C0012	1.312/50	1		10/21/11 16:13
109	T1.102111.161640	L11100484-05	11652-C0013	1.291/50	1		10/21/11 16:16
110	T1.102111.162016	L11100484-06	11652-C0014	1.309/50	1		10/21/11 16:20
111	T1.102111.162355	L11100484-07	11652-C0015	1.431/50	1		10/21/11 16:23
112	T1.102111.162733	WG379827-32	CCV		1		10/21/11 16:27
113	T1.102111.163059	WG379827-33	CCB		1		10/21/11 16:30
114	T1.102111.163440	L11100484-11	11652-C0017	1.414/50	1		10/21/11 16:34
115	T1.102111.163809	L11100484-12	11652-C0018	1.414/50	1		10/21/11 16:38
116	T1.102111.164148	L11100484-13	11652-C0019	1.316/50	1		10/21/11 16:41
117	T1.102111.164517	L11100484-14	11652-C0020	1.341/50	1		10/21/11 16:45
118	T1.102111.164847	L11100484-15	11652-C0021	1.353/50	1		10/21/11 16:48
119	T1.102111.165217	L11100484-16	11652-C0022	1.305/50	1		10/21/11 16:52
120	T1.102111.165546	L11100484-17	11652-C0023	1.315/50	1		10/21/11 16:55
121	T1.102111.165916	WG379827-34	CCV		1		10/21/11 16:59
122	T1.102111.170242	WG379827-35	CCB		1		10/21/11 17:02
123	T1.102111.170623	WG379321-02	Method/Prep Blank	1/50	1		10/21/11 17:06
124	T1.102111.171004	WG379321-03	Laboratory Control S	1/50	1		10/21/11 17:10
125	T1.102111.171342	WG379321-01	Reference Sample		1	L11100484-08	10/21/11 17:13
126	T1.102111.171720	WG379321-04	Matrix Spike	1.376/50	1	L11100484-08	10/21/11 17:17
127	T1.102111.172049	WG379321-05	Matrix Spike Duplica	1.376/50	1	L11100484-08	10/21/11 17:20
128	T1.102111.172428	L11100484-18	11652-C0024	1.438/50	1		10/21/11 17:24
129	T1.102111.172756	WG379703-01	Post Digestion Spike		1	L11100484-18	10/21/11 17:27
130	T1.102111.173124	WG379703-02	Serial Dilution		5	L11100484-18	10/21/11 17:31
131	T1.102111.173458	WG379703-02	Serial Dilution		25	L11100484-18	10/21/11 17:34
132	T1.102111.173837	L11100484-19	11652-C0025	1.326/50	1		10/21/11 17:38
133	T1.102111.174216	WG379827-36	CCV		1		10/21/11 17:42
134	T1.102111.174542	WG379827-37	CCB		1		10/21/11 17:45
135	T1.102111.174924	L11100484-20	11652-C0026	1.334/50	1		10/21/11 17:49
136	T1.102111.175302	L11100484-21	11652-C0027	1.385/50	1		10/21/11 17:53

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO1 Dataset: 102111.1R
 Analyst1: PDM Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 39395

Calibration Std: STD47754 ICV Std: STD48173 Post Spike: STD45521
 ICSA: STD48178 ICSAB: STD48172 Int. Std: STD48022
 CCV: STD48175 LLCCV: _____

379617,379540,379547,379551,379524,379599,379702,379703

Workgroups:

Comments: Additional Workgroup:379704,379400,379537,379538,379539,379620,379821,379822,379823

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
137	T1.102111.175632	L11100484-22	11652-C0028	1.362/50	1		10/21/11 17:56
138	T1.102111.180010	L11100484-23	11652-C0029	1.408/50	1		10/21/11 18:00
139	T1.102111.180340	L11100484-24	11652-C0030	1.354/50	1		10/21/11 18:03
140	T1.102111.180709	L11100484-25	11652-C0031	1.457/50	1		10/21/11 18:07
141	T1.102111.181047	L11100484-26	11652-C0032	1.333/50	1		10/21/11 18:10
142	T1.102111.181426	L11100484-27	11652-C0033	1.347/50	1		10/21/11 18:14
143	T1.102111.181755	L11100484-28	11652-C0034	1.345/50	1		10/21/11 18:17
144	T1.102111.182125	L11100484-29	11652-C0035	1.495/50	1		10/21/11 18:21
145	T1.102111.182454	WG379827-38	CCV		1		10/21/11 18:24
146	T1.102111.182821	WG379827-39	CCB		1		10/21/11 18:28
147	T1.102111.183202	L11100484-30	11652-C0036	1.328/50	1		10/21/11 18:32
148	T1.102111.183540	L11100484-31	11652-C0037	1.3/50	1		10/21/11 18:35
149	T1.102111.183919	L11100484-32	11652-C0038	1.373/50	1		10/21/11 18:39
150	T1.102111.184248	L11100484-33	11652-C0039	1.481/50	1		10/21/11 18:42
151	T1.102111.184653	L11100484-34	11652-C0040	1.317/50	1		10/21/11 18:46
152	T1.102111.185031	L11100484-35	11652-C0041	1.322/50	1		10/21/11 18:50
153	T1.102111.185401	L11100484-36	11652-C0042	1.351/50	1		10/21/11 18:54
154	T1.102111.185731	WG379827-40	CCV		1		10/21/11 18:57
155	T1.102111.190057	WG379827-41	CCB		1		10/21/11 19:00
156	T1.102111.190438	WG379329-03	Method/Prep Blank	1/50	1		10/21/11 19:04
157	T1.102111.190819	WG379329-04	Laboratory Control S	1.358/50	1		10/21/11 19:08
158	T1.102111.191157	L11100484-37	11652-C0043	1.421/50	1		10/21/11 19:11
159	T1.102111.191537	L11100484-38	11652-C0044	1.382/50	1		10/21/11 19:15
160	T1.102111.191917	WG379704-01	Post Digestion Spike		1	L11100484-38	10/21/11 19:19
161	T1.102111.192253	WG379704-02	Serial Dilution		5	L11100484-38	10/21/11 19:22
162	T1.102111.192626	WG379704-02	Serial Dilution		25	L11100484-38	10/21/11 19:26
163	T1.102111.193007	L11100484-39	11652-C0045	1.314/50	1		10/21/11 19:30
164	T1.102111.193345	L11100484-40	11652-C0046	1.418/50	1		10/21/11 19:33
165	T1.102111.193724	WG379329-01	Reference Sample		1	L11100484-41	10/21/11 19:37
166	T1.102111.194053	WG379827-42	CCV		1		10/21/11 19:40
167	T1.102111.194420	WG379827-43	CCB		1		10/21/11 19:44
168	T1.102111.194801	WG379329-05	Matrix Spike	1.338/50	1	L11100484-41	10/21/11 19:48
169	T1.102111.195130	WG379329-06	Matrix Spike Duplica	1.338/50	1	L11100484-41	10/21/11 19:51
170	T1.102111.195500	L11100484-44	11652-C0048	1.36/50	1		10/21/11 19:55

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO1 Dataset: 102111.1R
 Analyst1: PDM Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 39395

Calibration Std: STD47754 ICV Std: STD48173 Post Spike: STD45521
 ICSA: STD48178 ICSAB: STD48172 Int. Std: STD48022
 CCV: STD48175 LLCCV: _____

379617,379540,379547,379551,379524,379599,379702,379703

Workgroups:

Comments: Additional Workgroup:379704,379400,379537,379538,379539,379620,379821,379822,379823

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
171	T1.102111.195838	L11100484-45	11652-C0049	1.454/50	1		10/21/11 19:58
172	T1.102111.200217	L11100484-46	11652-C0050	1.329/50	1		10/21/11 20:02
173	T1.102111.200555	L11100484-47	11652-C0051	1.426/50	1		10/21/11 20:05
174	T1.102111.200933	L11100484-48	11652-C0052	1.366/50	1		10/21/11 20:09
175	T1.102111.201312	L11100485-01	11652-C0053	1.373/50	1		10/21/11 20:13
176	T1.102111.201656	L11100485-02	11652-C0054	1.494/50	1		10/21/11 20:16
177	T1.102111.202044	L11100485-03	11652-C0055	1.44/50	1		10/21/11 20:20
178	T1.102111.202422	WG379827-44	CCV		1		10/21/11 20:24
179	T1.102111.202749	WG379827-45	CCB		1		10/21/11 20:27
180	T1.102111.203130	L11100485-04	11652-C0056	1.392/50	1		10/21/11 20:31
181	T1.102111.203509	L11100485-05	11652-C0057	1.492/50	1		10/21/11 20:35
182	T1.102111.203847	L11100485-06	11652-C0058	1.472/50	1		10/21/11 20:38
183	T1.102111.204225	L11100485-07	11652-C0059	1.436/50	1		10/21/11 20:42
184	T1.102111.204613	WG379329-02	Reference Sample		1	L11100485-10	10/21/11 20:46
185	T1.102111.204943	WG379329-07	Matrix Spike	1.358/50	1	L11100485-10	10/21/11 20:49
186	T1.102111.205321	WG379329-08	Matrix Spike Duplica	1.358/50	1	L11100485-10	10/21/11 20:53
187	T1.102111.205700	WG379827-46	CCV		1		10/21/11 20:57
188	T1.102111.210027	WG379827-47	CCB		1		10/21/11 21:00
189	T1.102111.210408	L11100347-25	30999-C0012	1.38/50	1		10/21/11 21:04
190	T1.102111.210741	WG379400-01	Post Digestion Spike		1	L11100347-25	10/21/11 21:07
191	T1.102111.211109	WG379400-02	Serial Dilution		5	L11100347-25	10/21/11 21:11
192	T1.102111.211447	WG379400-02	Serial Dilution		25	L11100347-25	10/21/11 21:14
193	T1.102111.211827	L11100290-20	12619-C0027	1.013/50	5		10/21/11 21:18
194	T1.102111.212200	L11100290-21	13046-C0013	1.021/50	5		10/21/11 21:22
195	T1.102111.212530	L11100290-22	13058-C0009	1.006/50	5		10/21/11 21:25
196	T1.102111.212904	L11100290-23	13510-C0005	1.029/50	5		10/21/11 21:29
197	T1.102111.213235	L11100290-24	13602-C0016	1.026/50	5		10/21/11 21:32
198	T1.102111.213606	L11100290-25	13602-C0018	1.026/50	5		10/21/11 21:36
199	T1.102111.213938	WG379827-48	CCV		1		10/21/11 21:39
200	T1.102111.214306	WG379827-49	CCB		1		10/21/11 21:43
201	T1.102111.214647	L11100290-26	13616-C0001	1.049/50	5		10/21/11 21:46
202	T1.102111.215020	L11100290-34	70211-C0001	1.021/50	2		10/21/11 21:50
203	T1.102111.215351	L11100290-36	70211-C0003	1.025/50	2		10/21/11 21:53
204	T1.102111.215731	L11100290-38	70212-C0001	1.015/50	2		10/21/11 21:57

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO1 Dataset: 102111.1R
 Analyst1: PDM Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 39395

Calibration Std: STD47754 ICV Std: STD48173 Post Spike: STD45521
 ICSA: STD48178 ICSAB: STD48172 Int. Std: STD48022
 CCV: STD48175 LLCCV: _____

379617,379540,379547,379551,379524,379599,379702,379703

Workgroups:

Comments: Additional Workgroup:379704,379400,379537,379538,379539,379620,379821,379822,379823

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
205	T1.102111.220103	L11100291-05	75242-C0005	1.008/50	2		10/21/11 22:01
206	T1.102111.220435	L11100291-06	75242-C0006	1.006/50	2		10/21/11 22:04
207	T1.102111.220808	L11100291-12	75242-C0012	1.027/50	2		10/21/11 22:08
208	T1.102111.221140	L11100292-37	75246-C0004	1.002/50	2		10/21/11 22:11
209	T1.102111.221513	WG379620-01	Post Digestion Spike		2	L11100292-37	10/21/11 22:15
210	T1.102111.221848	WG379620-02	Serial Dilution		10	L11100292-37	10/21/11 22:18
211	T1.102111.222226	WG379827-50	CCV		1		10/21/11 22:22
212	T1.102111.222553	WG379827-51	CCB		1		10/21/11 22:25
213	T1.102111.222934	WG379821-02	Serial Dilution		50	L11100487-45	10/21/11 22:29
214	T1.102111.223314	L11100292-39	75246-C0006	1.017/50	2		10/21/11 22:33
215	T1.102111.223646	L11100292-45	75246-C0010	1.018/50	2		10/21/11 22:36
216	T1.102111.224018	WG379827-52	CCV		1		10/21/11 22:40
217	T1.102111.224345	WG379827-53	CCB		1		10/21/11 22:43
218	T1.102111.224727	WG379372-02	Method/Prep Blank	1/50	1		10/21/11 22:47
219	T1.102111.225108	WG379372-03	Laboratory Control S	1/50	1		10/21/11 22:51
220	T1.102111.225447	L11100487-45	31058-C0004	1.477/50	1		10/21/11 22:54
221	T1.102111.225826	WG379821-01	Post Digestion Spike		1	L11100487-45	10/21/11 22:58
222	T1.102111.230203	WG379821-02	Serial Dilution		5	L11100487-45	10/21/11 23:02
223	T1.102111.230539	WG379821-02	Serial Dilution		25	L11100487-45	10/21/11 23:05
224	T1.102111.230919	L11100487-46	31058-C0005	1.393/50	1		10/21/11 23:09
225	T1.102111.231309	L11100487-47	31058-C0006	1.331/50	1		10/21/11 23:13
226	T1.102111.231648	L11100487-48	31058-C0007	1.468/50	1		10/21/11 23:16
227	T1.102111.232018	L11100488-01	31058-C0008	1.339/50	1		10/21/11 23:20
228	T1.102111.232349	WG379827-54	CCV		1		10/21/11 23:23
229	T1.102111.232716	WG379827-55	CCB		1		10/21/11 23:27
230	T1.102111.233058	WG379372-01	Reference Sample		1	L11100488-02	10/21/11 23:30
231	T1.102111.233428	WG379372-04	Matrix Spike	1.399/50	1	L11100488-02	10/21/11 23:34
232	T1.102111.233758	WG379372-05	Matrix Spike Duplica	1.399/50	1	L11100488-02	10/21/11 23:37
233	T1.102111.234129	L11100488-05	31058-C0010	1.318/50	1		10/21/11 23:41
234	T1.102111.234459	L11100488-06	31058-C0011	1.342/50	1		10/21/11 23:44
235	T1.102111.234830	L11100488-07	31058-C0012	1.332/50	1		10/21/11 23:48
236	T1.102111.235159	L11100488-08	31058-C0013	1.358/50	1		10/21/11 23:51
237	T1.102111.235530	L11100488-09	31058-C0014	1.408/50	1		10/21/11 23:55
238	T1.102111.235900	L11100488-10	31058-C0015	1.388/50	1		10/21/11 23:59

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO1 Dataset: 102111.1R
 Analyst1: PDM Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 39395

Calibration Std: STD47754 ICV Std: STD48173 Post Spike: STD45521
 ICSA: STD48178 ICSAB: STD48172 Int. Std: STD48022
 CCV: STD48175 LLCCV: _____

379617,379540,379547,379551,379524,379599,379702,379703

Workgroups:

Comments: Additional Workgroup:379704,379400,379537,379538,379539,379620,379821,379822,379823

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
239	T1.102211.000230	L11100488-11	31058-C0016	1.386/50	1		10/22/11 00:02
240	T1.102211.000601	WG379827-56	CCV		1		10/22/11 00:06
241	T1.102211.000928	WG379827-57	CCB		1		10/22/11 00:09
242	T1.102211.001310	L11100488-12	31058-C0017	1.342/50	1		10/22/11 00:13
243	T1.102211.001640	L11100488-13	31058-C0018	1.39/50	1		10/22/11 00:16
244	T1.102211.002011	L11100488-14	31058-C0019	1.351/50	1		10/22/11 00:20
245	T1.102211.002341	L11100488-18	31058-C0021	1.416/50	1		10/22/11 00:23
246	T1.102211.002720	L11100488-19	31058-C0022	1.391/50	1		10/22/11 00:27
247	T1.102211.003051	L11100488-20	31058-C0023	1.402/50	1		10/22/11 00:30
248	T1.102211.003421	L11100488-21	31058-C0024	1.395/50	1		10/22/11 00:34
249	T1.102211.003752	WG379827-58	CCV		1		10/22/11 00:37
250	T1.102211.004119	WG379827-59	CCB		1		10/22/11 00:41
251	T1.102211.004500	WG379377-02	Method/Prep Blank	1/50	1		10/22/11 00:45
252	T1.102211.004842	WG379377-03	Laboratory Control S	1/50	1		10/22/11 00:48
253	T1.102211.005220	WG379377-01	Reference Sample		1	L11100488-15	10/22/11 00:52
254	T1.102211.005551	WG379377-04	Matrix Spike	1.42/50	1	L11100488-15	10/22/11 00:55
255	T1.102211.005921	WG379377-05	Matrix Spike Duplica	1.42/50	1	L11100488-15	10/22/11 00:59
256	T1.102211.010251	L11100488-22	31058-C0025	1.47/50	1		10/22/11 01:02
257	T1.102211.010622	L11100488-23	31058-C0026	1.319/50	1		10/22/11 01:06
258	T1.102211.010952	WG379822-01	Post Digestion Spike		1	L11100488-23	10/22/11 01:09
259	T1.102211.011321	WG379822-02	Serial Dilution		5	L11100488-23	10/22/11 01:13
260	T1.102211.011658	WG379822-02	Serial Dilution		25	L11100488-23	10/22/11 01:16
261	T1.102211.012039	WG379827-60	CCV		1		10/22/11 01:20
262	T1.102211.012406	WG379827-61	CCB		1		10/22/11 01:24
263	T1.102211.012748	L11100488-24	31058-C0027	1.375/50	1		10/22/11 01:27
264	T1.102211.013119	L11100488-25	31058-C0028	1.325/50	1		10/22/11 01:31
265	T1.102211.013451	L11100488-26	31058-C0029	1.393/50	1		10/22/11 01:34
266	T1.102211.013822	L11100488-27	31058-C0030	1.435/50	1		10/22/11 01:38
267	T1.102211.014152	L11100488-28	31058-C0031	1.449/50	1		10/22/11 01:41
268	T1.102211.014522	L11100488-29	31058-C0032	1.441/50	1		10/22/11 01:45
269	T1.102211.014853	L11100488-30	31058-C0033	1.357/50	1		10/22/11 01:48
270	T1.102211.015224	L11100488-31	31058-C0034	1.324/50	1		10/22/11 01:52
271	T1.102211.015554	L11100488-32	31058-C0035	1.468/50	1		10/22/11 01:55
272	T1.102211.015926	L11100488-33	31058-C0036	1.327/50	1		10/22/11 01:59

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO1 Dataset: 102111.1R
 Analyst1: PDM Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 39395

Calibration Std: STD47754 ICV Std: STD48173 Post Spike: STD45521
 ICSA: STD48178 ICSAB: STD48172 Int. Std: STD48022
 CCV: STD48175 LLCCV: _____

379617,379540,379547,379551,379524,379599,379702,379703

Workgroups:

Comments: Additional Workgroup:379704,379400,379537,379538,379539,379620,379821,379822,379823

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
273	T1.102211.020257	WG379827-62	CCV		1		10/22/11 02:02
274	T1.102211.020624	WG379827-63	CCB		1		10/22/11 02:06
275	T1.102211.021007	L11100488-34	31058-C0037	1.368/50	1		10/22/11 02:10
276	T1.102211.021337	L11100488-35	31058-C0038	1.355/50	1		10/22/11 02:13
277	T1.102211.021726	L11100488-36	31058-C0039	1.352/50	1		10/22/11 02:17
278	T1.102211.022056	L11100488-37	31058-C0040	1.471/50	1		10/22/11 02:20
279	T1.102211.022427	L11100488-38	31058-C0041	1.409/50	1		10/22/11 02:24
280	T1.102211.022758	L11100488-39	31058-C0042	1.329/50	1		10/22/11 02:27
281	T1.102211.023128	L11100488-40	3586-C0100	1.497/50	1		10/22/11 02:31
282	T1.102211.023506	WG379827-64	CCV		1		10/22/11 02:35
283	T1.102211.023833	WG379827-65	CCB		1		10/22/11 02:38
284	T1.102211.024214	WG379385-02	Method/Prep Blank	1/50	1		10/22/11 02:42
285	T1.102211.024556	WG379385-03	Laboratory Control S	1/50	1		10/22/11 02:45
286	T1.102211.024935	L11100488-41	3586-C0101	1.353/50	1		10/22/11 02:49
287	T1.102211.025322	WG379823-01	Post Digestion Spike		1	L11100488-41	10/22/11 02:53
288	T1.102211.025706	WG379823-02	Serial Dilution		5	L11100488-41	10/22/11 02:57
289	T1.102211.030037	WG379823-02	Serial Dilution		25	L11100488-41	10/22/11 03:00
290	T1.102211.030416	L11100488-42	3586-C0102	1.385/50	1		10/22/11 03:04
291	T1.102211.030820	L11100488-43	3586-C0103	1.388/50	1		10/22/11 03:08
292	T1.102211.031216	L11100488-44	3586-C0104	1.401/50	1		10/22/11 03:12
293	T1.102211.031602	L11100488-45	3586-C0105	1.328/50	1		10/22/11 03:16
294	T1.102211.031940	WG379827-66	CCV		1		10/22/11 03:19
295	T1.102211.032307	WG379827-67	CCB		1		10/22/11 03:23
296	T1.102211.032649	L11100488-46	3586-C0106	1.342/50	1		10/22/11 03:26
297	T1.102211.033045	L11100488-47	3586-C0107	1.353/50	1		10/22/11 03:30
298	T1.102211.033449	L11100488-48	3586-C0108	1.321/50	1		10/22/11 03:34
299	T1.102211.033836	L11100489-01	3586-C0109	1.341/50	1		10/22/11 03:38
300	T1.102211.034222	L11100489-02	3586-C0110	1.418/50	1		10/22/11 03:42
301	T1.102211.034608	L11100489-03	3586-C0111	1.355/50	1		10/22/11 03:46
302	T1.102211.034954	L11100489-04	3586-C0112	1.313/50	1		10/22/11 03:49
303	T1.102211.035350	L11100489-05	3586-C0113	1.498/50	1		10/22/11 03:53
304	T1.102211.035728	L11100489-06	3586-C0114	1.39/50	1		10/22/11 03:57
305	T1.102211.040124	L11100489-07	3586-C0115	1.34/50	1		10/22/11 04:01
306	T1.102211.040510	WG379827-68	CCV		1		10/22/11 04:05

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Microbac Laboratories Inc.

Instrument Run Log

Instrument: ICP-THERMO1 Dataset: 102111.1R
 Analyst1: PDM Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 39395

Calibration Std: STD47754 ICV Std: STD48173 Post Spike: STD45521
 ICSA: STD48178 ICSAB: STD48172 Int. Std: STD48022
 CCV: STD48175 LLCCV: _____

379617,379540,379547,379551,379524,379599,379702,379703

Workgroups:

Comments: Additional Workgroup:379704,379400,379537,379538,379539,379620,379821,379822,379823

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
307	T1.102211.040837	WG379827-69	CCB		1		10/22/11 04:08
308	T1.102211.041219	L11100489-08	3586-C0116	1.406/50	1		10/22/11 04:12
309	T1.102211.041607	L11100489-09	3586-C0117	1.369/50	1		10/22/11 04:16
310	T1.102211.041954	L11100489-10	3586-C0118	1.473/50	1		10/22/11 04:19
311	T1.102211.042349	L11100489-11	3586-C0119	1.333/50	1		10/22/11 04:23
312	T1.102211.042738	WG379385-01	Reference Sample		1	L11100489-12	10/22/11 04:27
313	T1.102211.043134	WG379385-04	Matrix Spike	1.39/50	1	L11100489-12	10/22/11 04:31
314	T1.102211.043529	WG379385-05	Matrix Spike Duplica	1.39/50	1	L11100489-12	10/22/11 04:35
315	T1.102211.043925	WG379827-70	CCV		1		10/22/11 04:39
316	T1.102211.044252	WG379827-71	CCB		1		10/22/11 04:42

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO1 Dataset: 102411.1
 Analyst1: PDM Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 39402

Calibration Std: STD47754 ICV Std: STD48173 Post Spike: STD45521
 ICSA: STD48178 ICSAB: STD48172 Int. Std: STD48022
 CCV: STD48175 LLCCV: _____

379923,379889,379890,379926,379927,379978,379979,379980

Workgroups:

Comments: Additional Workgroup 379981

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
1	T1.102411.083809	WG379938-01	Calibration Point		1		10/24/11 08:38
2	T1.102411.084205	WG379938-02	Calibration Point		1		10/24/11 08:42
3	T1.102411.084613	WG379938-03	Calibration Point		1		10/24/11 08:46
4	T1.102411.085000	WG379938-04	Calibration Point		1		10/24/11 08:50
5	T1.102411.085331	WG379938-05	Calibration Point		1		10/24/11 08:53
6	T1.102411.085707	WG379938-06	Initial Calibration Verification		1		10/24/11 08:57
7	T1.102411.090038	WG379938-07	Initial Calib Blank		1		10/24/11 09:00
8	T1.102411.090425	WG379938-08	Interference Check		1		10/24/11 09:04
9	T1.102411.090819	WG379938-09	Interference Check		1		10/24/11 09:08
10	T1.102411.091207	WG379938-10	CCV		1		10/24/11 09:12
11	T1.102411.091539	WG379938-11	CCB		1		10/24/11 09:15
12	T1.102411.091928	WG379879-02	Method/Prep Blank	1/50	1		10/24/11 09:19
13	T1.102411.092315	WG379879-03	Laboratory Control S	1/50	1		10/24/11 09:23
14	T1.102411.092659	L11100551-01	360-C0091	1.036/50	1		10/24/11 09:26
15	T1.102411.093049	WG379923-01	Post Digestion Spike		1	L11100551-01	10/24/11 09:30
16	T1.102411.093437	WG379923-02	Serial Dilution		5	L11100551-01	10/24/11 09:34
17	T1.102411.093814	WG379923-02	Serial Dilution		25	L11100551-01	10/24/11 09:38
18	T1.102411.094156	L11100671-32	6255-C0024	1.361/50	1		10/24/11 09:41
19	T1.102411.094531	WG379879-01	Reference Sample		1	L11100671-33	10/24/11 09:45
20	T1.102411.094907	WG379879-04	Matrix Spike	1.46/50	1	L11100671-33	10/24/11 09:49
21	T1.102411.095242	WG379879-05	Matrix Spike Duplica	1.46/50	1	L11100671-33	10/24/11 09:52
22	T1.102411.095622	WG379938-12	CCV		1		10/24/11 09:56
23	T1.102411.095954	WG379938-13	CCB		1		10/24/11 09:59
24	T1.102411.100343	L11100671-36	6255-C0026	1.339/50	1		10/24/11 10:03
25	T1.102411.100722	L11100671-37	6255-C0027	1.326/50	1		10/24/11 10:07
26	T1.102411.101058	L11100671-38	6255-C0028	1.341/50	1		10/24/11 10:10
27	T1.102411.101433	L11100671-39	6255-C0029	1.325/50	1		10/24/11 10:14
28	T1.102411.101808	L11100671-40	6255-C0030	1.396/50	1		10/24/11 10:18
29	T1.102411.102144	L11100671-41	6255-C0031	1.346/50	1		10/24/11 10:21
30	T1.102411.102519	L11100671-42	6255-C0032	1.384/50	1		10/24/11 10:25
31	T1.102411.102855	L11100671-43	6255-C0033	1.358/50	1		10/24/11 10:28
32	T1.102411.103230	L11100671-44	6255-C0034	1.401/50	1		10/24/11 10:32
33	T1.102411.103607	L11100671-45	6255-C0035	1.34/50	1		10/24/11 10:36
34	T1.102411.103947	WG379938-14	CCV		1		10/24/11 10:39

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO1 Dataset: 102411.1
 Analyst1: PDM Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 39402

Calibration Std: STD47754 ICV Std: STD48173 Post Spike: STD45521
 ICSA: STD48178 ICSAB: STD48172 Int. Std: STD48022
 CCV: STD48175 LLCCV: _____

379923,379889,379890,379926,379927,379978,379979,379980

Workgroups:

Comments: Additional Workgroup 379981

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
35	T1.102411.104318	WG379938-15	CCB		1		10/24/11 10:43
36	T1.102411.104710	L11100671-46	6255-C0036	1.493/50	1		10/24/11 10:47
37	T1.102411.105047	L11100671-47	6255-C0037	1.396/50	1		10/24/11 10:50
38	T1.102411.105431	L11100671-48	6255-C0038	1.366/50	1		10/24/11 10:54
39	T1.102411.105807	L11100672-01	6255-C0039	1.423/50	1		10/24/11 10:58
40	T1.102411.110143	L11100672-02	6255-C0040	1.33/50	1		10/24/11 11:01
41	T1.102411.110519	L11100672-03	6255-C0041	1.352/50	1		10/24/11 11:05
42	T1.102411.110856	L11100672-04	6255-C0042	1.389/50	1		10/24/11 11:08
43	T1.102411.111235	WG379938-16	CCV		1		10/24/11 11:12
44	T1.102411.111607	WG379938-17	CCB		1		10/24/11 11:16
45	T1.102411.111956	WG379386-02	Method/Prep Blank	1/50	1		10/24/11 11:19
46	T1.102411.112343	WG379386-03	Laboratory Control S	1/50	1		10/24/11 11:23
47	T1.102411.112726	L11100489-13	3586-C0121	1.469/50	1		10/24/11 11:27
48	T1.102411.113115	WG379889-01	Post Digestion Spike		1	L11100489-13	10/24/11 11:31
49	T1.102411.113454	WG379889-02	Serial Dilution		5	L11100489-13	10/24/11 11:34
50	T1.102411.113832	WG379889-02	Serial Dilution		25	L11100489-13	10/24/11 11:38
51	T1.102411.114217	L11100489-14	3586-C0122	1.448/50	1		10/24/11 11:42
52	T1.102411.114610	L11100489-15	3586-C0123	1.427/50	1		10/24/11 11:46
53	T1.102411.114951	L11100489-16	3586-C0124	1.412/50	1		10/24/11 11:49
54	T1.102411.115344	L11100489-17	3586-C0125	1.305/50	1		10/24/11 11:53
55	T1.102411.115740	WG379938-18	CCV		1		10/24/11 11:57
56	T1.102411.120112	WG379938-19	CCB		1		10/24/11 12:01
57	T1.102411.120502	L11100489-18	3586-C0126	1.333/50	1		10/24/11 12:05
58	T1.102411.120840	L11100489-19	3586-C0127	1.359/50	1		10/24/11 12:08
59	T1.102411.121217	L11100489-20	3586-C0128	1.431/50	1		10/24/11 12:12
60	T1.102411.121621	L11100489-21	3586-C0129	1.477/50	1		10/24/11 12:16
61	T1.102411.122014	L11100489-22	3586-C0130	1.407/50	1		10/24/11 12:20
62	T1.102411.122405	L11100489-23	6259-C0001	1.357/50	1		10/24/11 12:24
63	T1.102411.122741	L11100489-24	6259-C0002	1.411/50	1		10/24/11 12:27
64	T1.102411.123119	L11100489-25	6259-C0003	1.348/50	1		10/24/11 12:31
65	T1.102411.123455	WG379386-01	Reference Sample		1	L11100489-26	10/24/11 12:34
66	T1.102411.123830	WG379386-04	Matrix Spike	1.357/50	1	L11100489-26	10/24/11 12:38
67	T1.102411.124208	WG379938-20	CCV		1		10/24/11 12:42
68	T1.102411.124540	WG379938-21	CCB		1		10/24/11 12:45

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Microbac Laboratories Inc.

Instrument Run Log

Instrument: ICP-THERMO1 Dataset: 102411.1
 Analyst1: PDM Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 39402

Calibration Std: STD47754 ICV Std: STD48173 Post Spike: STD45521
 ICSA: STD48178 ICSAB: STD48172 Int. Std: STD48022
 CCV: STD48175 LLCCV: _____

379923,379889,379890,379926,379927,379978,379979,379980

Workgroups:

Comments: Additional Workgroup 379981

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
69	T1.102411.124930	WG379386-05	Matrix Spike Duplica	1.357/50	1	L11100489-26	10/24/11 12:49
70	T1.102411.125317	L11100489-29	6259-C0005	1.417/50	1		10/24/11 12:53
71	T1.102411.125653	L11100489-30	6259-C0006	1.351/50	1		10/24/11 12:56
72	T1.102411.130029	L11100489-31	6259-C0007	1.439/50	1		10/24/11 13:00
73	T1.102411.130404	L11100489-32	6259-C0008	1.389/50	1		10/24/11 13:04
74	T1.102411.130816	L11100489-33	6259-C0009	1.41/50	1		10/24/11 13:08
75	T1.102411.131151	L11100489-37	6259-C0011	1.315/50	1		10/24/11 13:11
76	T1.102411.131547	WG379938-22	CCV		1		10/24/11 13:15
77	T1.102411.131919	WG379938-23	CCB		1		10/24/11 13:19
78	T1.102411.132310	WG379459-02	Method/Prep Blank	1/50	1		10/24/11 13:23
79	T1.102411.132657	WG379459-03	Laboratory Control S	1/50	1		10/24/11 13:26
80	T1.102411.133040	L11100489-45	6259-C0019	1.441/50	1		10/24/11 13:30
81	T1.102411.133415	WG379890-01	Post Digestion Spike		1	L11100489-45	10/24/11 13:34
82	T1.102411.133749	WG379890-02	Serial Dilution		5	L11100489-45	10/24/11 13:37
83	T1.102411.134131	WG379890-02	Serial Dilution		25	L11100489-45	10/24/11 13:41
84	T1.102411.134516	L11100489-46	6259-C0020	1.331/50	1		10/24/11 13:45
85	T1.102411.134851	L11100489-47	6259-C0021	1.42/50	1		10/24/11 13:48
86	T1.102411.135226	L11100489-48	6259-C0022	1.464/50	1		10/24/11 13:52
87	T1.102411.135602	L11100490-01	6259-C0023	1.317/50	1		10/24/11 13:56
88	T1.102411.135940	WG379938-24	CCV		1		10/24/11 13:59
89	T1.102411.140312	WG379938-25	CCB		1		10/24/11 14:03
90	T1.102411.140703	L11100490-02	6259-C0024	1.431/50	1		10/24/11 14:07
91	T1.102411.141047	L11100490-03	6259-C0025	1.332/50	1		10/24/11 14:10
92	T1.102411.141422	L11100490-04	6259-C0026	1.348/50	1		10/24/11 14:14
93	T1.102411.141758	L11100490-05	6259-C0027	1.309/50	1		10/24/11 14:17
94	T1.102411.142133	L11100490-06	6259-C0028	1.405/50	1		10/24/11 14:21
95	T1.102411.142509	L11100490-07	6259-C0029	1.378/50	1		10/24/11 14:25
96	T1.102411.142847	L11100490-08	6259-C0030	1.421/50	1		10/24/11 14:28
97	T1.102411.143239	L11100490-09	6259-C0031	1.409/50	1		10/24/11 14:32
98	T1.102411.143615	L11100490-10	6259-C0032	1.326/50	1		10/24/11 14:36
99	T1.102411.143950	L11100490-11	6259-C0033	1.425/50	1		10/24/11 14:39
100	T1.102411.144329	WG379938-26	CCV		1		10/24/11 14:43
101	T1.102411.144702	WG379938-27	CCB		1		10/24/11 14:47
102	T1.102411.145053	L11100490-12	6259-C0034	1.486/50	1		10/24/11 14:50

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO1 Dataset: 102411.1
 Analyst1: PDM Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 39402

Calibration Std: STD47754 ICV Std: STD48173 Post Spike: STD45521
 ICSA: STD48178 ICSAB: STD48172 Int. Std: STD48022
 CCV: STD48175 LLCCV: _____

379923,379889,379890,379926,379927,379978,379979,379980

Workgroups:

Comments: Additional Workgroup 379981

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
103	T1.102411.145428	L11100490-13	6259-C0035	1.354/50	1		10/24/11 14:54
104	T1.102411.145813	L11100490-14	6259-C0036	1.388/50	1		10/24/11 14:58
105	T1.102411.150158	L11100490-15	6259-C0037	1.424/50	1		10/24/11 15:01
106	T1.102411.150545	WG379459-01	Reference Sample		1	L11100490-16	10/24/11 15:05
107	T1.102411.150933	WG379459-04	Matrix Spike	1.347/50	1	L11100490-16	10/24/11 15:09
108	T1.102411.151321	WG379459-05	Matrix Spike Duplica	1.347/50	1	L11100490-16	10/24/11 15:13
109	T1.102411.151703	WG379938-28	CCV		1		10/24/11 15:17
110	T1.102411.152035	WG379938-29	CCB		1		10/24/11 15:20
111	T1.102411.152425	WG379618-02	Method/Prep Blank	1/50	1		10/24/11 15:24
112	T1.102411.152820	WG379618-03	Laboratory Control S	1/50	1		10/24/11 15:28
113	T1.102411.153153	L11100490-37	6259-C0057	1.324/50	1		10/24/11 15:31
114	T1.102411.153538	WG379926-01	Post Digestion Spike		1	L11100490-37	10/24/11 15:35
115	T1.102411.153919	L11100490-37	6259-C0057		5		10/24/11 15:39
116	T1.102411.154300	WG379926-02	Serial Dilution		25	L11100490-37	10/24/11 15:43
117	T1.102411.154644	L11100490-38	6259-C0058	1.3/50	1		10/24/11 15:46
118	T1.102411.155037	L11100490-39	6259-C0059	1.32/50	1		10/24/11 15:50
119	T1.102411.155413	L11100490-40	6259-C0060	1.441/50	1		10/24/11 15:54
120	T1.102411.155757	L11100490-41	6259-C0061	1.397/50	1		10/24/11 15:57
121	T1.102411.160146	WG379938-30	CCV		1		10/24/11 16:01
122	T1.102411.160518	WG379938-31	CCB		1		10/24/11 16:05
123	T1.102411.160909	L11100490-42	6259-C0062	1.348/50	1		10/24/11 16:09
124	T1.102411.161309	L11100490-43	6259-C0063	1.312/50	1		10/24/11 16:13
125	T1.102411.161653	L11100490-44	6259-C0064	1.446/50	1		10/24/11 16:16
126	T1.102411.162037	L11100593-01	BORROW 1 - COVER	1.48/50	1		10/24/11 16:20
127	T1.102411.162430	L11100662-01	10763-C0063	1.346/50	1		10/24/11 16:24
128	T1.102411.162813	L11100662-02	10763-C0064	1.434/50	1		10/24/11 16:28
129	T1.102411.163157	L11100662-03	10763-C0065	1.325/50	1		10/24/11 16:31
130	T1.102411.163541	L11100662-04	10763-C0066	1.455/50	1		10/24/11 16:35
131	T1.102411.163934	L11100662-05	10763-C0067	1.359/50	1		10/24/11 16:39
132	T1.102411.164317	L11100662-06	10879-C0001	1.367/50	1		10/24/11 16:43
133	T1.102411.164655	WG379938-32	CCV		1		10/24/11 16:46
134	T1.102411.165027	WG379938-33	CCB		1		10/24/11 16:50
135	T1.102411.165415	L11100662-07	10879-C0002	1.338/50	1		10/24/11 16:54
136	T1.102411.165751	L11100662-08	10879-C0003	1.429/50	1		10/24/11 16:57

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO1 Dataset: 102411.1
 Analyst1: PDM Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 39402

Calibration Std: STD47754 ICV Std: STD48173 Post Spike: STD45521
 ICSA: STD48178 ICSAB: STD48172 Int. Std: STD48022
 CCV: STD48175 LLCCV: _____

379923,379889,379890,379926,379927,379978,379979,379980

Workgroups:

Comments: Additional Workgroup 379981

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
137	T1.102411.170135	L11100662-09	10879-C0004	1.406/50	1		10/24/11 17:01
138	T1.102411.170519	L11100662-10	10879-C0005	1.323/50	1		10/24/11 17:05
139	T1.102411.170912	WG379618-01	Reference Sample		1	L11100662-11	10/24/11 17:09
140	T1.102411.171304	WG379618-04	Matrix Spike	1.378/50	1	L11100662-11	10/24/11 17:13
141	T1.102411.171654	WG379618-05	Matrix Spike Duplica	1.378/50	1	L11100662-11	10/24/11 17:16
142	T1.102411.172054	WG379938-34	CCV		1		10/24/11 17:20
143	T1.102411.172426	WG379938-35	CCB		1		10/24/11 17:24
144	T1.102411.172814	WG379207-02	Method/Prep Blank	1/50	1		10/24/11 17:28
145	T1.102411.173200	WG379207-03	Laboratory Control S	1/50	1		10/24/11 17:32
146	T1.102411.173535	L11100435-01	TAC03-MW1016D-S-1-98	1.338/50	1		10/24/11 17:35
147	T1.102411.173927	WG379927-01	Post Digestion Spike		1	L11100435-01	10/24/11 17:39
148	T1.102411.174318	L11100435-01	TAC03-MW1016D-S-1-98		5		10/24/11 17:43
149	T1.102411.174657	WG379927-02	Serial Dilution		25	L11100435-01	10/24/11 17:46
150	T1.102411.175041	L11100435-02	TAC03-MW1016D-S-1-79	1.368/50	1		10/24/11 17:50
151	T1.102411.175417	L11100441-01	G-GPBSD0026(0.0-0.5)	1.316/50	1		10/24/11 17:54
152	T1.102411.175751	L11100441-02	G-52SD005(0.0-0.5)	1.368/50	1		10/24/11 17:57
153	T1.102411.180127	L11100441-03	G-SD101(0.0-0.5)	1.343/50	1		10/24/11 18:01
154	T1.102411.180503	WG379938-36	CCV		1		10/24/11 18:05
155	T1.102411.180836	WG379938-37	CCB		1		10/24/11 18:08
156	T1.102411.181223	L11100441-04	D-SDBS023(0.0-0.5)	1.48/50	1		10/24/11 18:12
157	T1.102411.181559	L11100441-05	D-SDBS024(0.0-0.5)	1.313/50	1		10/24/11 18:15
158	T1.102411.181933	L11100441-06	D-SDBS025(0.0-0.5)	1.435/50	1		10/24/11 18:19
159	T1.102411.182308	L11100441-07	D-DUP001(0.0-0.5)	1.305/50	1		10/24/11 18:23
160	T1.102411.182644	L11100441-09	G-31SD004(0.0-0.5)	1.31/50	1		10/24/11 18:26
161	T1.102411.183024	L11100441-10	M-BSSD001(0.0-0.5)	1.367/50	1		10/24/11 18:30
162	T1.102411.183408	L11100441-11	H-BSSD015(0.0-0.5)	1.32/50	1		10/24/11 18:34
163	T1.102411.183744	L11100441-12	H-BSSD024(0.0-0.5)	1.496/50	1		10/24/11 18:37
164	T1.102411.184119	L11100441-13	H-BSSD032(0.0-0.5)	1.398/50	1		10/24/11 18:41
165	T1.102411.184453	L11100441-14	H-BSSD029(0.0-0.5)	1.467/50	1		10/24/11 18:44
166	T1.102411.184832	WG379938-38	CCV		1		10/24/11 18:48
167	T1.102411.185204	WG379938-39	CCB		1		10/24/11 18:52
168	T1.102411.185553	L11100441-15	H-BSSD034(0.0-0.5)	1.415/50	1		10/24/11 18:55
169	T1.102411.185936	L11100441-17	C-34SD003(0.0-0.5)	1.305/50	1		10/24/11 18:59
170	T1.102411.190312	L11100441-18	C-34SD004(0.0-0.5)	1.348/50	1		10/24/11 19:03

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO1 Dataset: 102411.1
 Analyst1: PDM Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 39402

Calibration Std: STD47754 ICV Std: STD48173 Post Spike: STD45521
 ICSA: STD48178 ICSAB: STD48172 Int. Std: STD48022
 CCV: STD48175 LLCCV: _____

379923,379889,379890,379926,379927,379978,379979,379980

Workgroups:

Comments: Additional Workgroup 379981

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
171	T1.102411.190646	L11100441-19	C-34SD005(0.0-0.5)	1.306/50	1		10/24/11 19:06
172	T1.102411.191022	WG379207-01	Reference Sample		1	L11100441-20	10/24/11 19:10
173	T1.102411.191359	WG379207-04	Matrix Spike	1.388/50	1	L11100441-20	10/24/11 19:13
174	T1.102411.191732	WG379207-05	Matrix Spike Duplica	1.388/50	1	L11100441-20	10/24/11 19:17
175	T1.102411.192110	WG379938-40	CCV		1		10/24/11 19:21
176	T1.102411.192442	WG379938-41	CCB		1		10/24/11 19:24
177	T1.102411.192834	WG379619-02	Method/Prep Blank	1/50	1		10/24/11 19:28
178	T1.102411.193220	WG379619-03	Laboratory Control S	1/50	1		10/24/11 19:32
179	T1.102411.193604	L11100662-12	10879-C0007	1.427/50	1		10/24/11 19:36
180	T1.102411.193939	WG379978-01	Post Digestion Spike		1	L11100662-12	10/24/11 19:39
181	T1.102411.194312	WG379978-02	Serial Dilution		1	L11100662-12	10/24/11 19:43
182	T1.102411.194653	WG379978-02	Serial Dilution		1	L11100662-12	10/24/11 19:46
183	T1.102411.195039	L11100662-13	10879-C0008	1.348/50	1		10/24/11 19:50
184	T1.102411.195422	L11100662-14	10879-C0009	1.392/50	1		10/24/11 19:54
185	T1.102411.195758	WG379619-01	Reference Sample		1	L11100662-15	10/24/11 19:57
186	T1.102411.200134	WG379619-04	Matrix Spike	1.375/50	1	L11100662-15	10/24/11 20:01
187	T1.102411.200511	WG379938-42	CCV		1		10/24/11 20:05
188	T1.102411.200843	WG379938-43	CCB		1		10/24/11 20:08
189	T1.102411.201233	WG379619-05	Matrix Spike Duplica	1.375/50	1	L11100662-15	10/24/11 20:12
190	T1.102411.201609	L11100662-18	10879-C0011	1.3802/50	1		10/24/11 20:16
191	T1.102411.201945	L11100662-19	10879-C0012	1.344/50	1		10/24/11 20:19
192	T1.102411.202322	L11100662-20	10879-C0013	1.47/50	1		10/24/11 20:23
193	T1.102411.202705	L11100662-21	10879-C0014	1.343/50	1		10/24/11 20:27
194	T1.102411.203042	L11100662-22	10879-C0015	1.35/50	1		10/24/11 20:30
195	T1.102411.203426	L11100662-23	10879-C0016	1.34/50	1		10/24/11 20:34
196	T1.102411.203801	L11100662-24	10879-C0017	1.32/50	1		10/24/11 20:38
197	T1.102411.204137	L11100662-25	10879-C0018	1.351/50	1		10/24/11 20:41
198	T1.102411.204513	L11100662-26	10879-C0019	1.353/50	1		10/24/11 20:45
199	T1.102411.204902	WG379938-44	CCV		1		10/24/11 20:49
200	T1.102411.205235	WG379938-45	CCB		1		10/24/11 20:52
201	T1.102411.205626	L11100662-27	10879-C0020	1.392/50	1		10/24/11 20:56
202	T1.102411.210010	L11100662-28	10879-C0021	1.472/50	1		10/24/11 21:00
203	T1.102411.210354	L11100662-29	10879-C0022	1.479/50	1		10/24/11 21:03
204	T1.102411.210729	L11100662-30	10879-C0023	1.382/50	1		10/24/11 21:07

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO1 Dataset: 102411.1
 Analyst1: PDM Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 39402

Calibration Std: STD47754 ICV Std: STD48173 Post Spike: STD45521
 ICSA: STD48178 ICSAB: STD48172 Int. Std: STD48022
 CCV: STD48175 LLCCV: _____

379923,379889,379890,379926,379927,379978,379979,379980

Workgroups:

Comments: Additional Workgroup 379981

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
205	T1.102411.211113	L11100662-31	10879-C0024	1.362/50	1		10/24/11 21:11
206	T1.102411.211458	L11100662-32	10879-C0025	1.359/50	1		10/24/11 21:14
207	T1.102411.211842	L11100662-33	10879-C0026	1.313/50	1		10/24/11 21:18
208	T1.102411.212227	L11100263-22	TS737-SS-3C		50		10/24/11 21:22
209	T1.102411.212613	WG379524-02	Serial Dilution		250	L11100263-22	10/24/11 21:26
210	T1.102411.213004	WG379938-46	CCV		1		10/24/11 21:30
211	T1.102411.213336	WG379938-47	CCB		1		10/24/11 21:33
212	T1.102411.213725	WG379938-48	Linear Range Check		1		10/24/11 21:37
213	T1.102411.214120	WG379938-48	Linear Range Check		1		10/24/11 21:41
214	T1.102411.214505	WG379938-48	Linear Range Check		1		10/24/11 21:45
215	T1.102411.214855	RINSE	RINSE		1		10/24/11 21:48
216	T1.102411.215243	WG379938-49	CCV		1		10/24/11 21:52
217	T1.102411.215615	WG379938-77	CCB		1		10/24/11 21:56
218	T1.102411.220004	WG379625-02	Method/Prep Blank	1/50	1		10/24/11 22:00
219	T1.102411.220351	WG379625-03	Laboratory Control S	1/50	1		10/24/11 22:03
220	T1.102411.220735	L11100662-34	10879-C0027	1.368/50	1		10/24/11 22:07
221	T1.102411.221119	WG379979-01	Post Digestion Spike		1	L11100662-34	10/24/11 22:11
222	T1.102411.221500	WG379979-02	Serial Dilution		5	L11100662-34	10/24/11 22:15
223	T1.102411.221841	WG379979-02	Serial Dilution		25	L11100662-34	10/24/11 22:18
224	T1.102411.222226	L11100662-35	10879-C0028	1.336/50	1		10/24/11 22:22
225	T1.102411.222610	L11100662-36	10879-C0029	1.402/50	1		10/24/11 22:26
226	T1.102411.222955	L11100662-37	10879-C0030	1.361/50	1		10/24/11 22:29
227	T1.102411.223339	L11100662-38	10879-C0031	1.394/50	1		10/24/11 22:33
228	T1.102411.223734	WG379938-51	CCV		1		10/24/11 22:37
229	T1.102411.224106	WG379938-52	CCB		1		10/24/11 22:41
230	T1.102411.224455	L11100662-39	10879-C0032		1		10/24/11 22:44
231	T1.102411.224831	L11100662-40	10879-C0033		1		10/24/11 22:48
232	T1.102411.225216	L11100662-41	10879-C0034		1		10/24/11 22:52
233	T1.102411.225600	L11100662-42	10879-C0035		1		10/24/11 22:56
234	T1.102411.225940	L11100662-43	10879-C0036		1		10/24/11 22:59
235	T1.102411.230324	L11100662-44	10879-C0037		1		10/24/11 23:03
236	T1.102411.230711	L11100662-45	10879-C0038		1		10/24/11 23:07
237	T1.102411.231056	L11100662-46	10879-C0039		1		10/24/11 23:10
238	T1.102411.231442	L11100662-47	10879-C0040		1		10/24/11 23:14

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO1 Dataset: 102411.1
 Analyst1: PDM Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 39402

Calibration Std: STD47754 ICV Std: STD48173 Post Spike: STD45521
 ICSA: STD48178 ICSAB: STD48172 Int. Std: STD48022
 CCV: STD48175 LLCCV: _____

379923,379889,379890,379926,379927,379978,379979,379980

Workgroups:

Comments: Additional Workgroup 379981

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
239	T1.102411.231819	WG379625-01	Reference Sample		1	L11100662-48	10/24/11 23:18
240	T1.102411.232204	WG379938-53	CCV		1		10/24/11 23:22
241	T1.102411.232537	WG379938-54	CCB		1		10/24/11 23:25
242	T1.102411.232927	WG379625-04	Matrix Spike		1	L11100662-48	10/24/11 23:29
243	T1.102411.233312	WG379625-05	Matrix Spike Duplica		1	L11100662-48	10/24/11 23:33
244	T1.102411.233656	L11100663-03	11201-C0002		1		10/24/11 23:36
245	T1.102411.234032	L11100663-04	11201-C0003		1		10/24/11 23:40
246	T1.102411.234407	L11100663-05	11201-C0004		1		10/24/11 23:44
247	T1.102411.234752	L11100663-06	11201-C0005		1		10/24/11 23:47
248	T1.102411.235137	L11100663-07	11201-C0006		1		10/24/11 23:51
249	T1.102411.235524	WG379938-55	CCV		1		10/24/11 23:55
250	T1.102411.235856	WG379938-56	CCB		1		10/24/11 23:58
251	T1.102511.000244	WG379638-02	Method/Prep Blank	1/50	1		10/25/11 00:02
252	T1.102511.000631	WG379638-03	Laboratory Control S	1/50	1		10/25/11 00:06
253	T1.102511.001016	L11100663-08	11201-C0007	1.414/50	1		10/25/11 00:10
254	T1.102511.001402	WG379980-01	Post Digestion Spike		1	L11100663-08	10/25/11 00:14
255	T1.102511.001735	WG379980-02	Serial Dilution		5	L11100663-08	10/25/11 00:17
256	T1.102511.002116	WG379980-02	Serial Dilution		25	L11100663-08	10/25/11 00:21
257	T1.102511.002516	L11100663-09	11201-C0008	1.303/50	1		10/25/11 00:25
258	T1.102511.002851	L11100663-10	11201-C0009	1.47/50	1		10/25/11 00:28
259	T1.102511.003237	L11100663-11	11201-C0010	1.358/50	1		10/25/11 00:32
260	T1.102511.003618	L11100663-12	11201-C0011	1.447/50	1		10/25/11 00:36
261	T1.102511.003959	WG379938-57	CCV		1		10/25/11 00:39
262	T1.102511.004328	WG379938-58	CCB		1		10/25/11 00:43
263	T1.102511.004712	L11100663-13	11201-C0012	1.331/50	1		10/25/11 00:47
264	T1.102511.005045	L11100663-14	11201-C0013	1.373/50	1		10/25/11 00:50
265	T1.102511.005417	L11100663-15	11201-C0014	1.312/50	1		10/25/11 00:54
266	T1.102511.005758	L11100663-16	11201-C0015	1.358/50	1		10/25/11 00:57
267	T1.102511.010139	L11100663-17	11201-C0016	1.362/50	1		10/25/11 01:01
268	T1.102511.010512	L11100663-18	11201-C0017	1.434/50	1		10/25/11 01:05
269	T1.102511.010853	L11100663-19	11201-C0018	1.316/50	1		10/25/11 01:08
270	T1.102511.011225	L11100663-20	11201-C0019	1.324/50	1		10/25/11 01:12
271	T1.102511.011558	L11100663-21	11201-C0020	1.368/50	1		10/25/11 01:15
272	T1.102511.011930	L11100663-22	11201-C0021	1.359/50	1		10/25/11 01:19

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO1 Dataset: 102411.1
 Analyst1: PDM Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 39402

Calibration Std: STD47754 ICV Std: STD48173 Post Spike: STD45521
 ICSA: STD48178 ICSAB: STD48172 Int. Std: STD48022
 CCV: STD48175 LLCCV: _____

379923,379889,379890,379926,379927,379978,379979,379980

Workgroups:

Comments: Additional Workgroup 379981

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
273	T1.102511.012303	WG379938-59	CCV		1		10/25/11 01:23
274	T1.102511.012632	WG379938-60	CCB		1		10/25/11 01:26
275	T1.102511.013016	L11100663-23	11201-C0022		1		10/25/11 01:30
276	T1.102511.013349	L11100663-24	11201-C0023		1		10/25/11 01:33
277	T1.102511.013730	L11100663-25	11201-C0024		1		10/25/11 01:37
278	T1.102511.014120	L11100663-26	11201-C0025		1		10/25/11 01:41
279	T1.102511.014452	WG379638-01	Reference Sample		1	L11100663-27	10/25/11 01:44
280	T1.102511.014825	WG379638-04	Matrix Spike	1.325/50	1	L11100663-27	10/25/11 01:48
281	T1.102511.015157	WG379638-05	Matrix Spike Duplica	1.325/50	1	L11100663-27	10/25/11 01:51
282	T1.102511.015529	WG379938-61	CCV		1		10/25/11 01:55
283	T1.102511.015858	WG379938-62	CCB		1		10/25/11 01:58
284	T1.102511.020242	WG379938-63	Interference Check		1		10/25/11 02:02
285	T1.102511.020632	WG379938-64	Interference Check		1		10/25/11 02:06
286	T1.102511.021015	WG379938-65	CCV		1		10/25/11 02:10
287	T1.102511.021344	WG379938-66	CCB		1		10/25/11 02:13
288	T1.102511.021728	WG379213-02	Method/Prep Blank	1/50	1		10/25/11 02:17
289	T1.102511.022111	WG379213-03	Laboratory Control S	1/50	1		10/25/11 02:21
290	T1.102511.022442	WG379213-01	Reference Sample		1	L11100434-20	10/25/11 02:24
291	T1.102511.022823	WG379213-04	Matrix Spike	1.409/50	1	L11100434-20	10/25/11 02:28
292	T1.102511.023200	WG379213-05	Matrix Spike Duplica	1.409/50	1	L11100434-20	10/25/11 02:32
293	T1.102511.023538	L11100434-27	DE-33D-10102011	1.393/50	1		10/25/11 02:35
294	T1.102511.023920	L11100434-28	DE-33E-10102011	1.339/50	1		10/25/11 02:39
295	T1.102511.024302	WG379981-01	Post Digestion Spike		1	L11100434-28	10/25/11 02:43
296	T1.102511.024641	WG379981-02	Serial Dilution		5	L11100434-28	10/25/11 02:46
297	T1.102511.025030	WG379981-02	Serial Dilution		25	L11100434-28	10/25/11 02:50
298	T1.102511.025412	WG379938-67	CCV		1		10/25/11 02:54
299	T1.102511.025741	WG379938-68	CCB		1		10/25/11 02:57
300	T1.102511.030125	L11100434-29	DE-33F-10102011	1.322/50	1		10/25/11 03:01
301	T1.102511.030515	L11100434-30	DE-33G-10102011	1.32/50	1		10/25/11 03:05
302	T1.102511.030856	L11100434-31	DUP-SOIL-10102011-01	1.444/50	1		10/25/11 03:08
303	T1.102511.031240	L11100434-32	DUP-SOIL-10102011-02	1.363/50	1		10/25/11 03:12
304	T1.102511.031622	L11100434-33	DE-29A-10112011	1.367/50	1		10/25/11 03:16
305	T1.102511.031953	L11100434-34	DE-29B-10112011	1.331/50	1		10/25/11 03:19
306	T1.102511.032326	L11100434-35	DE-29C-10112011	1.321/50	1		10/25/11 03:23

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO1 Dataset: 102411.1
 Analyst1: PDM Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 39402

Calibration Std: STD47754 ICV Std: STD48173 Post Spike: STD45521
 ICSA: STD48178 ICSAB: STD48172 Int. Std: STD48022
 CCV: STD48175 LLCCV: _____

379923,379889,379890,379926,379927,379978,379979,379980

Workgroups:

Comments: Additional Workgroup 379981

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
307	T1.102511.032708	L11100434-36	DE-29D-10112011	1.33/50	1		10/25/11 03:27
308	T1.102511.033051	L11100434-40	DE-29F-10112011	1.423/50	1		10/25/11 03:30
309	T1.102511.033440	L11100434-41	DE-29G-10112011	1.388/50	1		10/25/11 03:34
310	T1.102511.033821	WG379938-69	CCV		1		10/25/11 03:38
311	T1.102511.034151	WG379938-70	CCB		1		10/25/11 03:41
312	T1.102511.034535	L11100434-42	DE-28A-10112011	1.424/50	1		10/25/11 03:45
313	T1.102511.034915	L11100434-43	DE-28B-10112011	1.377/50	1		10/25/11 03:49
314	T1.102511.035256	L11100434-44	DE-28C-10112011	1.374/50	1		10/25/11 03:52
315	T1.102511.035629	L11100434-45	DE-28D-10112011	1.498/50	1		10/25/11 03:56
316	T1.102511.040018	L11100434-46	DE-28E-10112011	1.332/50	1		10/25/11 04:00
317	T1.102511.040407	L11100434-47	DE-28F-10112011	1.391/50	1		10/25/11 04:04
318	T1.102511.040749	L11100434-48	DE-28G-10112011	1.364/50	1		10/25/11 04:07
319	T1.102511.041148	WG379938-71	CCV		1		10/25/11 04:11
320	T1.102511.041517	WG379938-72	CCB		1		10/25/11 04:15
321	T1.102511.041900	WG379938-73	Interference Check		1		10/25/11 04:19
322	T1.102511.042251	WG379938-74	Interference Check		1		10/25/11 04:22
323	T1.102511.042632	WG379938-75	CCV		1		10/25/11 04:26
324	T1.102511.043002	WG379938-76	CCB		1		10/25/11 04:30

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO1 Dataset: 102611.1
 Analyst1: PDM Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 39433

Calibration Std: STD47754 ICV Std: STD48173 Post Spike: STD45521
 ICSA: STD48178 ICSAB: STD48172 Int. Std: STD48022
 CCV: STD48175 LLCCV: _____

379926,379927,379524,380125,380129,380133,380049,379979

Workgroups:

Comments: Additional Workgroups: 380124, 380266,380292,380300,379620,380293
Seuences 310 through 363 were not reported due to CCV failures.

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
1	T1.102611.084559	WG380270-01	Calibration Point		1		10/26/11 08:45
2	T1.102611.085042	WG380270-02	Calibration Point		1		10/26/11 08:50
3	T1.102611.085431	WG380270-03	Calibration Point		1		10/26/11 08:54
4	T1.102611.085820	WG380270-04	Calibration Point		1		10/26/11 08:58
5	T1.102611.090157	WG380270-05	Calibration Point		1		10/26/11 09:01
6	T1.102611.090540	WG380270-06	Initial Calibration Verification		1		10/26/11 09:05
7	T1.102611.090917	WG380270-07	Initial Calib Blank		1		10/26/11 09:09
8	T1.102611.091306	WG380270-08	Interference Check		1		10/26/11 09:13
9	T1.102611.091701	WG380270-09	Interference Check		1		10/26/11 09:17
10	T1.102611.092053	WG380270-10	CCV		1		10/26/11 09:20
11	T1.102611.092432	WG380270-11	CCB		1		10/26/11 09:24
12	T1.102611.092820	PBS 98	PBS 98	1/50	1		10/26/11 09:28
13	T1.102611.093208	LC-SS	LCSS 98	1/50	1		10/26/11 09:32
14	T1.102611.093544	L11100662-11	10879-C0006		1	WG379618-01	10/26/11 09:35
15	T1.102611.093949	L111006621-1S	L1110066211S	1.378/50	1		10/26/11 09:39
16	T1.102611.094351	L1110066211-SD	L1110066211SD	1.378/50	1		10/26/11 09:43
17	T1.102611.094753	L11100593-01	BORROW 1 - COVER	1.48/50	1		10/26/11 09:47
18	T1.102611.095150	WG379926-03	Post Digestion Spike		1	L11100593-01	10/26/11 09:51
19	T1.102611.095535	WG379926-04	Serial Dilution		5	L11100593-01	10/26/11 09:55
20	T1.102611.095916	WG379926-04	Serial Dilution		25	L11100593-01	10/26/11 09:59
21	T1.102611.100304	WG380270-12	CCV		1		10/26/11 10:03
22	T1.102611.100641	WG380270-13	CCB		1		10/26/11 10:06
23	T1.102611.101034	WG379207-02	Method/Prep Blank	1/50	1		10/26/11 10:10
24	T1.102611.101424	WG379207-03	Laboratory Control S	1/50	1		10/26/11 10:14
25	T1.102611.101801	L11100441-01	G-GPBSD0026(0.0-0.5)	1.316/50	1		10/26/11 10:18
26	T1.102611.102139	WG379927-01	Post Digestion Spike		1	L11100435-01	10/26/11 10:21
27	T1.102611.102514	L1110044101-DL	L1110044101DL		5		10/26/11 10:25
28	T1.102611.102850	L1110044101-DL	L1110044101DL		25		10/26/11 10:28
29	T1.102611.103231	L11100441-02	G-52SD005(0.0-0.5)	1.368/50	1		10/26/11 10:32
30	T1.102611.103607	L11100441-03	G-SD101(0.0-0.5)	1.343/50	1		10/26/11 10:36
31	T1.102611.103945	L11100441-04	D-SDBS023(0.0-0.5)	1.48/50	1		10/26/11 10:39
32	T1.102611.104326	L11100441-05	D-SDBS024(0.0-0.5)	1.313/50	1		10/26/11 10:43
33	T1.102611.104707	WG380270-14	CCV		1		10/26/11 10:47
34	T1.102611.105042	WG380270-15	CCB		1		10/26/11 10:50

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO1 Dataset: 102611.1
 Analyst1: PDM Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 39433

Calibration Std: STD47754 ICV Std: STD48173 Post Spike: STD45521
 ICSA: STD48178 ICSAB: STD48172 Int. Std: STD48022
 CCV: STD48175 LLCCV: _____

379926,379927,379524,380125,380129,380133,380049,379979

Workgroups:

Comments: Additional Workgroups: 380124, 380266,380292,380300,379620,380293
Seuences 310 through 363 were not reported due to CCV failures.

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
35	T1.102611.105436	L11100263-22	TS737-SS-3C		100		10/26/11 10:54
36	T1.102611.105825	L1110026322-PS	L1110026322PS		100		10/26/11 10:58
37	T1.102611.110201	WG379524-02	Serial Dilution		500	L11100263-22	10/26/11 11:02
38	T1.102611.110715	WG380270-16	CCV		1		10/26/11 11:07
39	T1.102611.111049	WG380270-17	CCB		1		10/26/11 11:10
40	T1.102611.111441	WG380270-18	Linear Range Check		1		10/26/11 11:14
41	T1.102611.111834	RINSE	RINSE		1		10/26/11 11:18
42	T1.102611.112225	L11100263-22	TS737-SS-3C	1.322/50	100		10/26/11 11:22
43	T1.102611.112615	WG379524-01	Post Digestion Spike		100	L11100263-22	10/26/11 11:26
44	T1.102611.112959	WG379524-02	Serial Dilution		500	L11100263-22	10/26/11 11:29
45	T1.102611.113355	WG380270-19	CCV		1		10/26/11 11:33
46	T1.102611.113734	WG380270-20	CCB		1		10/26/11 11:37
47	T1.102611.114130	L11100441-06	D-SDBS025(0.0-0.5)	1.435/50	1		10/26/11 11:41
48	T1.102611.114513	L11100441-07	D-DUP001(0.0-0.5)	1.305/50	1		10/26/11 11:45
49	T1.102611.114856	L11100441-09	G-31SD004(0.0-0.5)	1.31/50	1		10/26/11 11:48
50	T1.102611.115239	L11100441-10	M-BSSD001(0.0-0.5)	1.367/50	1		10/26/11 11:52
51	T1.102611.115622	L11100441-11	H-BSS015(0.0-0.5)	1.32/50	1		10/26/11 11:56
52	T1.102611.120003	L11100441-12	H-BSSD024(0.0-0.5)	1.496/50	1		10/26/11 12:00
53	T1.102611.120352	L11100441-13	H-BSSD032(0.0-0.5)	1.398/50	1		10/26/11 12:03
54	T1.102611.120731	L11100441-14	H-BSSD029(0.0-0.5)	1.467/50	1		10/26/11 12:07
55	T1.102611.121115	WG380270-21	CCV		1		10/26/11 12:11
56	T1.102611.121451	WG380270-22	CCB		1		10/26/11 12:14
57	T1.102611.121845	L11100441-15	H-BSSD034(0.0-0.5)	1.415/50	1		10/26/11 12:18
58	T1.102611.122232	L11100441-17	C-34SD003(0.0-0.5)	1.305/50	1		10/26/11 12:22
59	T1.102611.122611	L11100441-18	C-34SD004(0.0-0.5)	1.348/50	1		10/26/11 12:26
60	T1.102611.122944	L11100441-19	C-34SD005(0.0-0.5)	1.306/50	1		10/26/11 12:29
61	T1.102611.123321	WG379207-01	Reference Sample		1	L11100441-20	10/26/11 12:33
62	T1.102611.123706	WG379207-04	Matrix Spike	1.388/50	1	L11100441-20	10/26/11 12:37
63	T1.102611.124040	WG379207-05	Matrix Spike Duplica	1.388/50	1	L11100441-20	10/26/11 12:40
64	T1.102611.124425	WG380270-23	CCV		1		10/26/11 12:44
65	T1.102611.124802	WG380270-24	CCB		1		10/26/11 12:48
66	T1.102611.125153	WG379728-02	Method/Prep Blank	1/50	1		10/26/11 12:51
67	T1.102611.125544	WG379728-03	Laboratory Control S	1/50	1		10/26/11 12:55
68	T1.102611.125930	L11100668-04	6158-C0030	1.318/50	1		10/26/11 12:59

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO1 Dataset: 102611.1
 Analyst1: PDM Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 39433

Calibration Std: STD47754 ICV Std: STD48173 Post Spike: STD45521
 ICSA: STD48178 ICSAB: STD48172 Int. Std: STD48022
 CCV: STD48175 LLCCV: _____

379926,379927,379524,380125,380129,380133,380049,379979

Workgroups:

Comments: Additional Workgroups: 380124, 380266,380292,380300,379620,380293
Seuences 310 through 363 were not reported due to CCV failures.

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
69	T1.102611.130318	L11100668-05	6158-C0031	1.33/50	1		10/26/11 13:03
70	T1.102611.130706	WG380125-01	Post Digestion Spike		1	L11100668-05	10/26/11 13:07
71	T1.102611.131050	WG380125-02	Serial Dilution		5	L11100668-05	10/26/11 13:10
72	T1.102611.131433	WG380125-02	Serial Dilution		25	L11100668-05	10/26/11 13:14
73	T1.102611.131820	L11100668-06	6158-C0032	1.419/50	1		10/26/11 13:18
74	T1.102611.132208	L11100668-07	6158-C0033	1.311/50	1		10/26/11 13:22
75	T1.102611.132548	L11100668-08	6158-C0034	1.431/50	1		10/26/11 13:25
76	T1.102611.132945	WG380270-25	CCV		1		10/26/11 13:29
77	T1.102611.133323	WG380270-26	CCB		1		10/26/11 13:33
78	T1.102611.133717	L11100668-09	6158-C0035	1.314/50	1		10/26/11 13:37
79	T1.102611.134057	L11100668-10	6158-C0036	1.411/50	1		10/26/11 13:40
80	T1.102611.134444	L11100668-11	6158-C0037	1.44/50	1		10/26/11 13:44
81	T1.102611.134832	L11100668-12	6158-C0038	1.377/50	1		10/26/11 13:48
82	T1.102611.135219	L11100668-13	6158-C0039	1.341/50	1		10/26/11 13:52
83	T1.102611.135559	L11100668-14	6158-C0040	1.369/50	1		10/26/11 13:55
84	T1.102611.135947	L11100668-15	6158-C0041	1.466/50	1		10/26/11 13:59
85	T1.102611.140335	L11100668-16	6242-C0001	1.321/50	1		10/26/11 14:03
86	T1.102611.140722	L11100668-17	6242-C0002	1.455/50	1		10/26/11 14:07
87	T1.102611.141110	L11100668-18	6242-C0003	1.446/50	1		10/26/11 14:11
88	T1.102611.141502	WG380270-27	CCV		1		10/26/11 14:15
89	T1.102611.141840	WG380270-28	CCB		1		10/26/11 14:18
90	T1.102611.142232	L11100668-19	6242-C0004	1.42/50	1		10/26/11 14:22
91	T1.102611.142622	L11100668-20	6242-C0005	1.367/50	1		10/26/11 14:26
92	T1.102611.143040	L11100668-21	6242-C0006	1.448/50	1		10/26/11 14:30
93	T1.102611.143430	WG379728-01	Reference Sample		1	L11100668-22	10/26/11 14:34
94	T1.102611.143845	WG379728-04	Matrix Spike	1.404/50	1	L11100668-22	10/26/11 14:38
95	T1.102611.144259	WG379728-05	Matrix Spike Duplica	1.404/50	1	L11100668-22	10/26/11 14:42
96	T1.102611.144713	L11100668-25	6242-C0008	1.3/50	1		10/26/11 14:47
97	T1.102611.145103	WG380270-29	CCV		1		10/26/11 14:51
98	T1.102611.145440	WG380270-30	CCB		1		10/26/11 14:54
99	T1.102611.145832	WG379767-02	Method/Prep Blank	1/50	1		10/26/11 14:58
100	T1.102611.150224	WG379767-03	Laboratory Control S	1/50	1		10/26/11 15:02
101	T1.102611.150613	WG379767-01	Reference Sample		1	L11100668-46	10/26/11 15:06
102	T1.102611.151002	WG379767-04	Matrix Spike	1.337/50	1	L11100668-46	10/26/11 15:10

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO1 Dataset: 102611.1
 Analyst1: PDM Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 39433

Calibration Std: STD47754 ICV Std: STD48173 Post Spike: STD45521
 ICSA: STD48178 ICSAB: STD48172 Int. Std: STD48022
 CCV: STD48175 LLCCV: _____

379926,379927,379524,380125,380129,380133,380049,379979

Workgroups:

Comments: Additional Workgroups: 380124, 380266,380292,380300,379620,380293
Sequences 310 through 363 were not reported due to CCV failures.

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
103	T1.102611.151352	WG379767-05	Matrix Spike Duplica	1.337/50	1	L11100668-46	10/26/11 15:13
104	T1.102611.151744	L11100669-01	6242-C0030	1.316/50	1		10/26/11 15:17
105	T1.102611.152133	WG380129-01	Post Digestion Spike		1	L11100669-01	10/26/11 15:21
106	T1.102611.152519	WG380129-02	Serial Dilution		5	L11100669-01	10/26/11 15:25
107	T1.102611.152856	WG380129-02	Serial Dilution		25	L11100669-01	10/26/11 15:28
108	T1.102611.153241	L11100669-02	6242-C0031	1.359/50	1		10/26/11 15:32
109	T1.102611.153631	WG380270-31	CCV		1		10/26/11 15:36
110	T1.102611.154007	WG380270-32	CCB		1		10/26/11 15:40
111	T1.102611.154358	L11100669-03	6242-C0032	1.338/50	1		10/26/11 15:43
112	T1.102611.154739	L11100669-04	6242-C0033	1.397/50	1		10/26/11 15:47
113	T1.102611.155127	L11100669-05	6242-C0034	1.35/50	1		10/26/11 15:51
114	T1.102611.155514	L11100669-06	6242-C0035	1.496/50	1		10/26/11 15:55
115	T1.102611.155902	L11100669-07	6242-C0036	1.376/50	1		10/26/11 15:59
116	T1.102611.160248	L11100669-08	6242-C0037	1.419/50	1		10/26/11 16:02
117	T1.102611.160636	L11100669-09	6242-C0038	1.324/50	1		10/26/11 16:06
118	T1.102611.161023	L11100669-10	6242-C0039	1.451/50	1		10/26/11 16:10
119	T1.102611.161410	L11100669-11	6242-C0040	1.31/50	1		10/26/11 16:14
120	T1.102611.161749	L11100669-12	6242-C0041	1.327/50	1		10/26/11 16:17
121	T1.102611.162139	WG380270-33	CCV		1		10/26/11 16:21
122	T1.102611.162514	WG380270-34	CCB		1		10/26/11 16:25
123	T1.102611.162910	L11100669-13	6242-C0042	1.382/50	1		10/26/11 16:29
124	T1.102611.163300	L11100669-14	6242-C0043	1.336/50	1		10/26/11 16:33
125	T1.102611.163649	L11100669-15	6242-C0044	1.308/50	1		10/26/11 16:36
126	T1.102611.164036	L11100669-16	6242-C0045	1.362/50	1		10/26/11 16:40
127	T1.102611.164423	L11100669-17	6242-C0046	1.303/50	1		10/26/11 16:44
128	T1.102611.164811	L11100669-18	6242-C0047	1.376/50	1		10/26/11 16:48
129	T1.102611.165149	L11100669-19	6242-C0048	1.361/50	1		10/26/11 16:51
130	T1.102611.165535	WG380270-35	CCV		1		10/26/11 16:55
131	T1.102611.165911	WG380270-36	CCB		1		10/26/11 16:59
132	T1.102611.170304	L11100667-47	6158-C0025	1.489/50	1		10/26/11 17:03
133	T1.102611.170642	L11100667-48	6158-C0026	1.349/50	1		10/26/11 17:06
134	T1.102611.171030	L11100668-01	6158-C0027	1.332/50	1		10/26/11 17:10
135	T1.102611.171408	L11100668-02	6158-C0028	1.394/50	1		10/26/11 17:14
136	T1.102611.171756	WG379701-01	Reference Sample		1	L11100668-03	10/26/11 17:17

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO1 Dataset: 102611.1
 Analyst1: PDM Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 39433

Calibration Std: STD47754 ICV Std: STD48173 Post Spike: STD45521
 ICSA: STD48178 ICSAB: STD48172 Int. Std: STD48022
 CCV: STD48175 LLCCV: _____

379926,379927,379524,380125,380129,380133,380049,379979

Workgroups:

Comments: Additional Workgroups: 380124, 380266,380292,380300,379620,380293
Seuences 310 through 363 were not reported due to CCV failures.

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
137	T1.102611.172135	WG379701-04	Matrix Spike	1.37/50	1	L11100668-03	10/26/11 17:21
138	T1.102611.172514	WG379701-05	Matrix Spike Duplica	1.37/50	1	L11100668-03	10/26/11 17:25
139	T1.102611.172857	L11100662-39	10879-C0032	1.351/50	1		10/26/11 17:28
140	T1.102611.173240	L11100662-40	10879-C0033	1.314/50	1		10/26/11 17:32
141	T1.102611.173630	L11100662-41	10879-C0034	1.309/50	1		10/26/11 17:36
142	T1.102611.174023	WG380270-37	CCV		1		10/26/11 17:40
143	T1.102611.174359	WG380270-38	CCB		1		10/26/11 17:43
144	T1.102611.174754	L11100662-42	10879-C0035	1.328/50	1		10/26/11 17:47
145	T1.102611.175133	L11100662-43	10879-C0036	1.344/50	1		10/26/11 17:51
146	T1.102611.175522	L11100662-44	10879-C0037	1.471/50	1		10/26/11 17:55
147	T1.102611.175910	L11100662-45	10879-C0038	1.463/50	1		10/26/11 17:59
148	T1.102611.180259	L11100662-46	10879-C0039	1.417/50	1		10/26/11 18:02
149	T1.102611.180647	L11100662-47	10879-C0040	1.364/50	1		10/26/11 18:06
150	T1.102611.181026	WG379625-01	Reference Sample		1	L11100662-48	10/26/11 18:10
151	T1.102611.181415	WG379625-04	Matrix Spike	1.42/50	1	L11100662-48	10/26/11 18:14
152	T1.102611.181803	WG379625-05	Matrix Spike Duplica	1.42/50	1	L11100662-48	10/26/11 18:18
153	T1.102611.182151	L11100664-17	12257-C0062	1.367/50	1		10/26/11 18:21
154	T1.102611.182535	WG380270-39	CCV		1		10/26/11 18:25
155	T1.102611.182906	WG380270-40	CCB		1		10/26/11 18:29
156	T1.102611.183256	L11100664-18	12257-C0063	1.339/50	1		10/26/11 18:32
157	T1.102611.183643	L11100664-19	12257-C0064	1.395/50	1		10/26/11 18:36
158	T1.102611.184029	WG379652-02	Reference Sample		1	L11100664-20	10/26/11 18:40
159	T1.102611.184417	WG379652-07	Matrix Spike	1.316/50	1	L11100664-20	10/26/11 18:44
160	T1.102611.184803	WG379652-08	Matrix Spike Duplica	1.316/50	1	L11100664-20	10/26/11 18:48
161	T1.102611.185151	L11100664-23	31020-C0002	1.324/50	1		10/26/11 18:51
162	T1.102611.185538	L11100670-09	6249-C0009	1.367/50	1		10/26/11 18:55
163	T1.102611.185916	L11100670-10	6249-C0010	1.303/50	1		10/26/11 18:59
164	T1.102611.190259	WG380270-41	CCV		1		10/26/11 19:02
165	T1.102611.190635	WG380270-42	CCB		1		10/26/11 19:06
166	T1.102611.191027	L11100670-11	6249-C0011	1.313/50	1		10/26/11 19:10
167	T1.102611.191407	L11100670-12	6249-C0012	1.456/50	1		10/26/11 19:14
168	T1.102611.191754	L11100670-14	6249-C0014		1	WG379769-01	10/26/11 19:17
169	T1.102611.192150	L11100670-15	6249-C0014-MS	1.316/50	1	WG379769-04	10/26/11 19:21
170	T1.102611.192530	L11100670-16	6249-C0014-MSD	1.316/50	1	WG379769-05	10/26/11 19:25

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO1 Dataset: 102611.1
 Analyst1: PDM Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 39433

Calibration Std: STD47754 ICV Std: STD48173 Post Spike: STD45521
 ICSA: STD48178 ICSAB: STD48172 Int. Std: STD48022
 CCV: STD48175 LLCCV: _____

379926,379927,379524,380125,380129,380133,380049,379979

Workgroups:

Comments: Additional Workgroups: 380124, 380266,380292,380300,379620,380293
Seuences 310 through 363 were not reported due to CCV failures.

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
171	T1.102611.192923	Empty Cup	Empty Cup		1		10/26/11 19:29
172	T1.102611.193322	WG380270-43	CCV		1		10/26/11 19:33
173	T1.102611.193702	WG380270-44	CCB		1		10/26/11 19:37
174	T1.102611.194056	WG380229-02	Method/Prep Blank	1/50	1		10/26/11 19:40
175	T1.102611.194447	WG380229-03	Laboratory Control S	1/50	1		10/26/11 19:44
176	T1.102611.194825	L11100783-17	31008-C0007	1.463/50	1		10/26/11 19:48
177	T1.102611.195223	WG380266-01	Post Digestion Spike		1	L11100783-17	10/26/11 19:52
178	T1.102611.195617	WG380266-02	Serial Dilution		5	L11100783-17	10/26/11 19:56
179	T1.102611.200010	WG380266-02	Serial Dilution		25	L11100783-17	10/26/11 20:00
180	T1.102611.200356	L11100783-18	31008-C0008	1.417/50	1		10/26/11 20:03
181	T1.102611.200754	L11100783-19	31008-C0009	1.379/50	1		10/26/11 20:07
182	T1.102611.201142	L11100783-20	31008-C0010	1.323/50	1		10/26/11 20:11
183	T1.102611.201531	L11100783-21	31008-C0011	1.352/50	1		10/26/11 20:15
184	T1.102611.201916	WG380270-45	CCV		1		10/26/11 20:19
185	T1.102611.202253	WG380270-46	CCB		1		10/26/11 20:22
186	T1.102611.202645	L11100783-22	31008-C0012	1.418/50	1		10/26/11 20:26
187	T1.102611.203020	L11100783-23	31008-C0013	1.374/50	1		10/26/11 20:30
188	T1.102611.203406	WG380229-01	Reference Sample		1	L11100783-24	10/26/11 20:34
189	T1.102611.203752	WG380229-04	Matrix Spike	1.425/50	1	L11100783-24	10/26/11 20:37
190	T1.102611.204135	WG380229-05	Matrix Spike Duplica	1.425/50	1	L11100783-24	10/26/11 20:41
191	T1.102611.204519	L11100783-27	31008-C0015	1.338/50	1		10/26/11 20:45
192	T1.102611.204858	L11100783-28	31008-C0016	1.417/50	1		10/26/11 20:48
193	T1.102611.205253	L11100783-29	31008-C0017	1.339/50	1		10/26/11 20:52
194	T1.102611.205640	L11100783-30	31008-C0018	1.331/50	1		10/26/11 20:56
195	T1.102611.210028	L11100783-31	31008-C0019	1.413/50	1		10/26/11 21:00
196	T1.102611.210420	WG380270-47	CCV		1		10/26/11 21:04
197	T1.102611.210755	WG380270-48	CCB		1		10/26/11 21:07
198	T1.102611.211148	L11100783-32	31008-C0020	1.365/50	1		10/26/11 21:11
199	T1.102611.211535	L11100783-33	31008-C0021	1.344/50	1		10/26/11 21:15
200	T1.102611.211923	L11100783-34	31008-C0022	1.343/50	1		10/26/11 21:19
201	T1.102611.212310	L11100783-35	31008-C0023	1.329/50	1		10/26/11 21:23
202	T1.102611.212658	L11100783-36	31008-C0024	1.427/50	1		10/26/11 21:26
203	T1.102611.213046	L11100783-37	31008-C0025	1.403/50	1		10/26/11 21:30
204	T1.102611.213434	L11100871-01	REAR DECK	.253/50	1		10/26/11 21:34

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO1 Dataset: 102611.1
 Analyst1: PDM Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 39433

Calibration Std: STD47754 ICV Std: STD48173 Post Spike: STD45521
 ICSA: STD48178 ICSAB: STD48172 Int. Std: STD48022
 CCV: STD48175 LLCCV: _____

379926,379927,379524,380125,380129,380133,380049,379979

Workgroups:

Comments: Additional Workgroups: 380124, 380266,380292,380300,379620,380293
Seuences 310 through 363 were not reported due to CCV failures.

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
205	T1.102611.213817	WG380270-49	CCV		1		10/26/11 21:38
206	T1.102611.214152	WG380270-50	CCB		1		10/26/11 21:41
207	T1.102611.214545	WG379963-02	Method/Prep Blank	1/50	1		10/26/11 21:45
208	T1.102611.214935	WG379963-03	Laboratory Control S	1/50	1		10/26/11 21:49
209	T1.102611.215321	L11100575-46	75231-C0012	1.045/50	5		10/26/11 21:53
210	T1.102611.215704	WG380292-01	Post Digestion Spike		5	L11100575-46	10/26/11 21:57
211	T1.102611.220042	WG380292-02	Serial Dilution		25	L11100575-46	10/26/11 22:00
212	T1.102611.220428	WG380292-02	Serial Dilution		125	L11100575-46	10/26/11 22:04
213	T1.102611.220817	L11100575-47	75231-C0013	1.011/50	5		10/26/11 22:08
214	T1.102611.221157	L11100575-48	75231-C0014	1.011/50	5		10/26/11 22:11
215	T1.102611.221540	L11100576-01	75231-C0015	1.011/50	5		10/26/11 22:15
216	T1.102611.221922	L11100576-02	75231-C0016	1.013/50	5		10/26/11 22:19
217	T1.102611.222306	WG380270-51	CCV		1		10/26/11 22:23
218	T1.102611.222645	WG380270-52	CCB		1		10/26/11 22:26
219	T1.102611.223046	L11100576-03	75232-C0001	1.004/50	5		10/26/11 22:30
220	T1.102611.223432	L11100576-04	75232-C0002	1.03/50	5		10/26/11 22:34
221	T1.102611.223816	L11100576-05	75232-C0003	1.009/50	5		10/26/11 22:38
222	T1.102611.224159	L11100576-06	75232-C0005	1.031/50	5		10/26/11 22:41
223	T1.102611.224542	L11100576-07	75232-C0006	1.003/50	5		10/26/11 22:45
224	T1.102611.224924	L11100576-08	75232-C0007	1.032/50	5		10/26/11 22:49
225	T1.102611.225307	L11100576-09	75232-C0008	1.002/50	5		10/26/11 22:53
226	T1.102611.225658	L11100576-10	75232-C0009	1.048/50	5		10/26/11 22:56
227	T1.102611.230040	L11100576-11	75232-C0010	1.011/50	5		10/26/11 23:00
228	T1.102611.230423	L11100576-12	75232-C0011	1.036/50	5		10/26/11 23:04
229	T1.102611.230812	WG380270-53	CCV		1		10/26/11 23:08
230	T1.102611.231148	WG380270-54	CCB		1		10/26/11 23:11
231	T1.102611.231542	L11100576-13	75232-C0012	1.003/50	5		10/26/11 23:15
232	T1.102611.231924	L11100576-14	75232-C0013	1.029/50	5		10/26/11 23:19
233	T1.102611.232306	L11100576-15	75232-C0014	1.024/50	5		10/26/11 23:23
234	T1.102611.232648	L11100576-16	75232-C0015	1.048/50	5		10/26/11 23:26
235	T1.102611.233031	WG379963-01	Reference Sample		5	L11100576-17	10/26/11 23:30
236	T1.102611.233414	WG379963-04	Matrix Spike	1.018/50	5	L11100576-17	10/26/11 23:34
237	T1.102611.233759	WG379963-05	Matrix Spike Duplica	1.018/50	5	L11100576-17	10/26/11 23:37
238	T1.102611.234147	WG380270-55	CCV		1		10/26/11 23:41

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO1 Dataset: 102611.1
 Analyst1: PDM Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 39433

Calibration Std: STD47754 ICV Std: STD48173 Post Spike: STD45521
 ICSA: STD48178 ICSAB: STD48172 Int. Std: STD48022
 CCV: STD48175 LLCCV: _____

379926,379927,379524,380125,380129,380133,380049,379979

Workgroups:

Comments: Additional Workgroups: 380124, 380266,380292,380300,379620,380293
Seuences 310 through 363 were not reported due to CCV failures.

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
239	T1.102611.234524	WG380270-56	CCB		1		10/26/11 23:45
240	T1.102611.234916	WG380273-03	Method/Prep Blank	1/50	1		10/26/11 23:49
241	T1.102611.235307	WG380273-04	Laboratory Control S	1/50	1		10/26/11 23:53
242	T1.102611.235654	WG380273-01	Reference Sample		1	L11100786-03	10/26/11 23:56
243	T1.102711.000033	WG380273-05	Matrix Spike	1.323/50	1	L11100786-03	10/27/11 00:00
244	T1.102711.000412	WG380273-06	Matrix Spike Duplica	1.323/50	1	L11100786-03	10/27/11 00:04
245	T1.102711.000752	L11100786-07	6272-C0003	1.478/50	1		10/27/11 00:07
246	T1.102711.001132	L11100786-08	6272-C0004	1.423/50	1		10/27/11 00:11
247	T1.102711.001520	WG380300-01	Post Digestion Spike		1	L11100786-08	10/27/11 00:15
248	T1.102711.001857	WG380300-02	Serial Dilution		5	L11100786-08	10/27/11 00:18
249	T1.102711.002237	WG380300-02	Serial Dilution		25	L11100786-08	10/27/11 00:22
250	T1.102711.002631	WG380270-57	CCV		1		10/27/11 00:26
251	T1.102711.003007	WG380270-58	CCB		1		10/27/11 00:30
252	T1.102711.003402	L11100786-09	6272-C0005	1.405/50	1		10/27/11 00:34
253	T1.102711.003742	WG380273-02	Reference Sample		1	L11100786-10	10/27/11 00:37
254	T1.102711.004121	WG380273-07	Matrix Spike	1.386/50	1	L11100786-10	10/27/11 00:41
255	T1.102711.004501	WG380273-08	Matrix Spike Duplica	1.386/50	1	L11100786-10	10/27/11 00:45
256	T1.102711.004841	L11100786-13	6272-C0007	1.36/50	1		10/27/11 00:48
257	T1.102711.005229	L11100786-14	6272-C0008	1.479/50	1		10/27/11 00:52
258	T1.102711.005609	L11100786-15	6272-C0009	1.33/50	1		10/27/11 00:56
259	T1.102711.005949	L11100786-16	6272-C0010	1.413/50	1		10/27/11 00:59
260	T1.102711.010328	L11100786-17	6272-C0011	1.35/50	1		10/27/11 01:03
261	T1.102711.010708	L11100786-18	6272-C0012	1.417/50	1		10/27/11 01:07
262	T1.102711.011053	WG380270-59	CCV		1		10/27/11 01:10
263	T1.102711.011429	WG380270-60	CCB		1		10/27/11 01:14
264	T1.102711.011824	L11100786-19	6272-C0013	1.421/50	1		10/27/11 01:18
265	T1.102711.012204	L11100786-20	6272-C0014	1.445/50	1		10/27/11 01:22
266	T1.102711.012553	L11100786-21	6272-C0015	1.479/50	1		10/27/11 01:25
267	T1.102711.012933	L11100786-22	6272-C0016	1.368/50	1		10/27/11 01:29
268	T1.102711.013312	L11100786-23	6272-C0017	1.4/50	1		10/27/11 01:33
269	T1.102711.013652	L11100786-24	6272-C0018	1.391/50	1		10/27/11 01:36
270	T1.102711.014032	L11100883-01	15728-C0032	1.349/50	1		10/27/11 01:40
271	T1.102711.014415	WG380270-61	CCV		1		10/27/11 01:44
272	T1.102711.014752	WG380270-62	CCB		1		10/27/11 01:47

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO1 Dataset: 102611.1
 Analyst1: PDM Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 39433

Calibration Std: STD47754 ICV Std: STD48173 Post Spike: STD45521
 ICSA: STD48178 ICSAB: STD48172 Int. Std: STD48022
 CCV: STD48175 LLCCV: _____

379926,379927,379524,380125,380129,380133,380049,379979

Workgroups:

Comments: Additional Workgroups: 380124, 380266,380292,380300,379620,380293
Seuences 310 through 363 were not reported due to CCV failures.

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
273	T1.102711.015146	WG380270-63	Interference Check		1		10/27/11 01:51
274	T1.102711.015541	WG380270-64	Interference Check		1		10/27/11 01:55
275	T1.102711.015935	WG380270-65	CCV		1		10/27/11 01:59
276	T1.102711.020312	WG380270-66	CCB		1		10/27/11 02:03
277	T1.102711.020706	WG379198-02	Method/Prep Blank	1/50	1		10/27/11 02:07
278	T1.102711.021057	WG379198-03	Laboratory Control S	1/50	1		10/27/11 02:10
279	T1.102711.021433	L11100434-19	DE-32C-10102011	1.369/50	1		10/27/11 02:14
280	T1.102711.021821	WG379620-03	Post Digestion Spike		1	L11100434-19	10/27/11 02:18
281	T1.102711.022206	WG379620-04	Serial Dilution		5	L11100434-19	10/27/11 02:22
282	T1.102711.022547	WG379620-04	Serial Dilution		25	L11100434-19	10/27/11 02:25
283	T1.102711.022932	L11100434-23	DE-32E-10102011	1.327/50	1		10/27/11 02:29
284	T1.102711.023321	L11100434-24	DE-33A-10102011	1.362/50	1		10/27/11 02:33
285	T1.102711.023709	L11100434-25	DE-33B-10102011	1.3/50	1		10/27/11 02:37
286	T1.102711.024056	L11100434-26	DE-33C-10102011	1.356/50	1		10/27/11 02:40
287	T1.102711.024447	WG380270-67	CCV		1		10/27/11 02:44
288	T1.102711.024825	WG380270-68	CCB		1		10/27/11 02:48
289	T1.102711.025218	WG379198-01	Reference Sample		1	L11100292-41	10/27/11 02:52
290	T1.102711.025558	WG379198-04	Matrix Spike	1.009/50	1	L11100292-41	10/27/11 02:55
291	T1.102711.025934	WG379198-05	Matrix Spike Duplica	1.009/50	1	L11100292-41	10/27/11 02:59
292	T1.102711.030313	WG380270-69	CCV		1		10/27/11 03:03
293	T1.102711.030649	WG380270-70	CCB		1		10/27/11 03:06
294	T1.102711.031043	WG380270-71	Interference Check		1		10/27/11 03:10
295	T1.102711.031440	WG380270-72	Interference Check		1		10/27/11 03:14
296	T1.102711.031835	WG380270-73	CCV		1		10/27/11 03:18
297	T1.102711.032211	WG380270-74	CCB		1		10/27/11 03:22
298	T1.102711.032604	WG379964-02	Method/Prep Blank	1/50	1		10/27/11 03:26
299	T1.102711.032955	WG379964-03	Laboratory Control S	1/50	1		10/27/11 03:29
300	T1.102711.033342	L11100576-18	75232-C0017	1.048/50	2		10/27/11 03:33
301	T1.102711.033726	WG380293-01	Post Digestion Spike		2	L11100576-18	10/27/11 03:37
302	T1.102711.034103	WG380293-02	Serial Dilution		10	L11100576-18	10/27/11 03:41
303	T1.102711.034448	WG380293-02	Serial Dilution		50	L11100576-18	10/27/11 03:44
304	T1.102711.034837	L11100576-19	75232-C0018	1.042/50	2		10/27/11 03:48
305	T1.102711.035217	WG379964-01	Reference Sample		2	L11100576-20	10/27/11 03:52
306	T1.102711.035606	WG379964-04	Matrix Spike	1.028/50	2	L11100576-20	10/27/11 03:56

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO1 Dataset: 102611.1
 Analyst1: PDM Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 39433

Calibration Std: STD47754 ICV Std: STD48173 Post Spike: STD45521
 ICSA: STD48178 ICSAB: STD48172 Int. Std: STD48022
 CCV: STD48175 LLCCV: _____

379926,379927,379524,380125,380129,380133,380049,379979

Workgroups:

Comments: Additional Workgroups: 380124, 380266,380292,380300,379620,380293
Seuences 310 through 363 were not reported due to CCV failures.

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
307	T1.102711.035955	WG379964-05	Matrix Spike Duplica	1.028/50	2	L11100576-20	10/27/11 03:59
308	T1.102711.040344	WG380270-75	CCV		1		10/27/11 04:03
309	T1.102711.040721	WG380270-76	CCB		1		10/27/11 04:07
310	T1.102711.041115	L11100576-23	75232-C0020		2		10/27/11 04:11
311	T1.102711.041456	L11100576-24	75232-C0021		2		10/27/11 04:14
312	T1.102711.041835	L11100576-25	75232-C0023		2		10/27/11 04:18
313	T1.102711.042224	L11100576-26	75232-C0024		2		10/27/11 04:22
314	T1.102711.042613	L11100576-27	75232-C0025		2		10/27/11 04:26
315	T1.102711.042955	L11100576-28	75232-C0026		2		10/27/11 04:29
316	T1.102711.043335	L11100576-29	75232-C0027		2		10/27/11 04:33
317	T1.102711.043725	L11100576-30	75240-C0001		2		10/27/11 04:37
318	T1.102711.044105	L11100576-31	75240-C0002		2		10/27/11 04:41
319	T1.102711.044447	L11100576-32	75240-C0003		2		10/27/11 04:44
320	T1.102711.044828	WG380270-77	CCV		1		10/27/11 04:48
321	T1.102711.045206	WG380270-78	CCB		1		10/27/11 04:52
322	T1.102711.045559	L11100576-33	75240-C0004		2		10/27/11 04:55
323	T1.102711.045939	L11100576-34	75240-C0005		2		10/27/11 04:59
324	T1.102711.050319	L11100576-38	75240-C0007		2		10/27/11 05:03
325	T1.102711.050659	L11100576-39	75240-C0008		2		10/27/11 05:06
326	T1.102711.051039	L11100576-40	75240-C0011		2		10/27/11 05:10
327	T1.102711.051420	L11100576-41	75241-C0001		2		10/27/11 05:14
328	T1.102711.051801	L11100576-42	75241-C0003		2		10/27/11 05:18
329	T1.102711.052144	WG380270-79	CCV		1		10/27/11 05:21
330	T1.102711.052520	WG380270-80	CCB		1		10/27/11 05:25
331	T1.102711.052912	WG379976-02	Method/Prep Blank		1		10/27/11 05:29
332	T1.102711.053303	WG379976-03	Laboratory Control S		1		10/27/11 05:33
333	T1.102711.053650	WG379976-01	Reference Sample		2	L11100576-35	10/27/11 05:36
334	T1.102711.054031	WG379976-04	Matrix Spike		2	L11100576-35	10/27/11 05:40
335	T1.102711.054411	WG379976-05	Matrix Spike Duplica		2	L11100576-35	10/27/11 05:44
336	T1.102711.054752	L11100576-43	75241-C0004		2		10/27/11 05:47
337	T1.102711.055133	L11100576-44	75241-C0005		2		10/27/11 05:51
338	T1.102711.055513	WG380294-01	Post Digestion Spike		2	L11100576-44	10/27/11 05:55
339	T1.102711.055851	WG380294-02	Serial Dilution		10	L11100576-44	10/27/11 05:58
340	T1.102711.060236	WG380294-02	Serial Dilution		50	L11100576-44	10/27/11 06:02

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO1 Dataset: 102611.1
 Analyst1: PDM Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 39433

Calibration Std: STD47754 ICV Std: STD48173 Post Spike: STD45521
 ICSA: STD48178 ICSAB: STD48172 Int. Std: STD48022
 CCV: STD48175 LLCCV: _____

379926,379927,379524,380125,380129,380133,380049,379979

Workgroups:

Comments: Additional Workgroups: 380124, 380266,380292,380300,379620,380293
Seuences 310 through 363 were not reported due to CCV failures.

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
341	T1.102711.060625	WG380270-81	CCV		1		10/27/11 06:06
342	T1.102711.061002	WG380270-82	CCB		1		10/27/11 06:10
343	T1.102711.061354	L11100576-45	75241-C0006		2		10/27/11 06:13
344	T1.102711.061736	L11100576-46	75241-C0007		2		10/27/11 06:17
345	T1.102711.062117	L11100576-47	75241-C0008		2		10/27/11 06:21
346	T1.102711.062458	L11100576-48	75241-C0009		2		10/27/11 06:24
347	T1.102711.062838	L11100577-01	75241-C0010		2		10/27/11 06:28
348	T1.102711.063221	L11100577-02	75241-C0011		2		10/27/11 06:32
349	T1.102711.063601	L11100577-03	75241-C0012		2		10/27/11 06:36
350	T1.102711.063942	L11100577-04	75241-C0013		2		10/27/11 06:39
351	T1.102711.064323	L11100577-05	75241-C0014		2		10/27/11 06:43
352	T1.102711.064703	L11100776-01	10832-C0001		2		10/27/11 06:47
353	T1.102711.065045	WG380270-83	CCV		1		10/27/11 06:50
354	T1.102711.065422	WG380270-84	CCB		1		10/27/11 06:54
355	T1.102711.065816	L11100776-02	10832-C0002		2		10/27/11 06:58
356	T1.102711.070205	L11100776-03	10832-C0003		2		10/27/11 07:02
357	T1.102711.070545	L11100776-04	10832-C0004		2		10/27/11 07:05
358	T1.102711.070926	L11100776-05	10832-C0005		2		10/27/11 07:09
359	T1.102711.071306	L11100776-06	10832-C0006		2		10/27/11 07:13
360	T1.102711.071655	L11100776-07	10832-C0007		2		10/27/11 07:16
361	T1.102711.072045	L11100776-08	10832-C0008		2		10/27/11 07:20
362	T1.102711.072441	WG380270-85	CCV		1		10/27/11 07:24
363	T1.102711.072820	WG380270-86	CCB		1		10/27/11 07:28
364	T1.102711.073213	ACID	ACID		1		10/27/11 07:32
365	T1.102711.073608	ACID	ACID		1		10/27/11 07:36
366	T1.102711.074000	ACID	ACID		1		10/27/11 07:40
367	T1.102711.074353	ACID	ACID		1		10/27/11 07:43
368	T1.102711.074744	WATER	WATER		1		10/27/11 07:47
369	T1.102711.075136	WATER	WATER		1		10/27/11 07:51
370	T1.102711.075529	WATER	WATER		1		10/27/11 07:55
371	T1.102711.075921	WATER	WATER		1		10/27/11 07:59
372	T1.102711.080312	AIR	AIR		1		10/27/11 08:03

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO1 Dataset: 103111.1
 Analyst1: PDM Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 39481

Calibration Std: STD47754 ICV Std: STD48173 Post Spike: STD45521
 ICSA: STD48178 ICSAB: STD48172 Int. Std: STD48022
 CCV: STD48175 LLCCV: _____

379981,580124,380735,380420,380702,380428,380070,380427

Workgroups:

Comments: Sequence 37 through 44 and 106 through 166 were not reported due to CCV failures

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
1	T1.103111.090153	WG380705-01	Calibration Point		1		10/31/11 09:01
2	T1.103111.090555	WG380705-02	Calibration Point		1		10/31/11 09:05
3	T1.103111.090951	WG380705-03	Calibration Point		1		10/31/11 09:09
4	T1.103111.091347	WG380705-04	Calibration Point		1		10/31/11 09:13
5	T1.103111.091737	WG380705-05	Calibration Point		1		10/31/11 09:17
6	T1.103111.092125	WG380705-06	Initial Calibration Verification		1		10/31/11 09:21
7	T1.103111.092507	WG380705-07	Initial Calib Blank		1		10/31/11 09:25
8	T1.103111.092903	WG380705-08	Interference Check		1		10/31/11 09:29
9	T1.103111.093304	WG380705-09	Interference Check		1		10/31/11 09:33
10	T1.103111.093715	WG380705-10	CCV		1		10/31/11 09:37
11	T1.103111.094055	WG380705-11	CCB		1		10/31/11 09:40
12	T1.103111.094448	L11100434-29	DE-33F-10102011	1.322/50	1		10/31/11 09:44
13	T1.103111.094840	L11100434-30	DE-33G-10102011	1.32/50	1		10/31/11 09:48
14	T1.103111.095231	L11100434-31	DUP-SOIL-10102011-01	1.444/50	1		10/31/11 09:52
15	T1.103111.095621	L11100434-32	DUP-SOIL-10102011-02	1.363/50	1		10/31/11 09:56
16	T1.103111.100011	L11100434-33	DE-29A-10112011	1.367/50	1		10/31/11 10:00
17	T1.103111.100349	L11100434-34	DE-29B-10112011	1.331/50	1		10/31/11 10:03
18	T1.103111.100733	L11100434-35	DE-29C-10112011	1.321/50	1		10/31/11 10:07
19	T1.103111.101123	L11100434-36	DE-29D-10112011	1.33/50	1		10/31/11 10:11
20	T1.103111.101514	L11100434-40	DE-29F-10112011	1.423/50	1		10/31/11 10:15
21	T1.103111.101905	L11100434-41	DE-29G-10112011	1.388/50	1		10/31/11 10:19
22	T1.103111.102254	WG380705-12	CCV		1		10/31/11 10:22
23	T1.103111.102633	WG380705-13	CCB		1		10/31/11 10:26
24	T1.103111.103026	L11100434-42	DE-28A-10112011	1.424/50	1		10/31/11 10:30
25	T1.103111.103413	L11100434-43	DE-28B-10112011	1.377/50	1		10/31/11 10:34
26	T1.103111.103803	L11100434-44	DE-28C-10112011	1.374/50	1		10/31/11 10:38
27	T1.103111.104145	L11100434-45	DE-28D-10112011	1.498/50	1		10/31/11 10:41
28	T1.103111.104535	L11100434-46	DE-28E-10112011	1.332/50	1		10/31/11 10:45
29	T1.103111.104925	L11100434-47	DE-28F-10112011	1.391/50	1		10/31/11 10:49
30	T1.103111.105318	L11100434-48	DE-28G-10112011	1.364/50	1		10/31/11 10:53
31	T1.103111.105717	WG380705-14	CCV		1		10/31/11 10:57
32	T1.103111.110056	WG380705-15	CCB		1		10/31/11 11:00
33	T1.103111.110450	WG380705-16	Interference Check		1		10/31/11 11:04
34	T1.103111.110847	WG380705-17	Interference Check		1		10/31/11 11:08

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO1 Dataset: 103111.1
 Analyst1: PDM Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 39481

Calibration Std: STD47754 ICV Std: STD48173 Post Spike: STD45521
 ICSA: STD48178 ICSAB: STD48172 Int. Std: STD48022
 CCV: STD48175 LLCCV: _____

379981,580124,380735,380420,380702,380428,380070,380427

Workgroups:

Comments: Sequence 37 through 44 and 106 through 166 were not reported due to CCV failures

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
35	T1.103111.111241	WG380705-18	CCV		1		10/31/11 11:12
36	T1.103111.111626	WG380705-19	CCB		1		10/31/11 11:16
37	T1.103111.112021	WG380390-02	Method/Prep Blank		1		10/31/11 11:20
38	T1.103111.112415	WG380390-03	Laboratory Control S		1		10/31/11 11:24
39	T1.103111.112756	L11100900-03	AV-NCB-OSF-C1-102511		1		10/31/11 11:27
40	T1.103111.113151	WG380437-03	Post Digestion Spike		1	L11100900-03	10/31/11 11:31
41	T1.103111.113534	WG380437-04	Serial Dilution		1	L11100900-03	10/31/11 11:35
42	T1.103111.113929	WG380390-01	Reference Sample		100	L11100900-05	10/31/11 11:39
43	T1.103111.114319	WG380390-04	Matrix Spike		1	L11100900-05	10/31/11 11:43
44	T1.103111.114710	WG380390-05	Matrix Spike Duplica		1	L11100900-05	10/31/11 11:47
45	T1.103111.115101	WG380705-20	CCV		1		10/31/11 11:51
46	T1.103111.115441	WG380705-21	CCB		1		10/31/11 11:54
47	T1.103111.115832	L11100667-37	6158-C0015	1.302/50	1		10/31/11 11:58
48	T1.103111.120214	L11100667-38	6158-C0016	1.367/50	1		10/31/11 12:02
49	T1.103111.120605	L11100667-39	6158-C0017	1.38/50	1		10/31/11 12:06
50	T1.103111.120956	L11100667-40	6158-C0018	1.325/50	1		10/31/11 12:09
51	T1.103111.121347	L11100667-41	6158-C0019	1.41/50	1		10/31/11 12:13
52	T1.103111.121729	L11100667-42	6158-C0020	1.339/50	1		10/31/11 12:17
53	T1.103111.122120	L11100667-43	6158-C0021	1.359/50	1		10/31/11 12:21
54	T1.103111.122512	L11100667-44	6158-C0022	1.366/50	1		10/31/11 12:25
55	T1.103111.122903	L11100667-45	6158-C0023	1.363/50	1		10/31/11 12:29
56	T1.103111.123254	L11100667-46	6158-C0024	1.325/50	1		10/31/11 12:32
57	T1.103111.123645	WG380705-22	CCV		1		10/31/11 12:36
58	T1.103111.124023	WG380705-23	CCB		1		10/31/11 12:40
59	T1.103111.124417	L11100011-08	IDL1-ICP-THERMO1		1		10/31/11 12:44
60	T1.103111.124809	L11100011-09	IDL2-ICP-THERMO1		1		10/31/11 12:48
61	T1.103111.125201	L11100011-10	IDL3-ICP-THERMO1		1		10/31/11 12:52
62	T1.103111.125553	L11100011-11	IDL4-ICP-THERMO1		1		10/31/11 12:55
63	T1.103111.125945	L11100011-12	IDL5-ICP-THERMO1		1		10/31/11 12:59
64	T1.103111.130336	L11100011-13	IDL6-ICP-THERMO1		1		10/31/11 13:03
65	T1.103111.130730	L11100011-14	IDL7-ICP-THERMO1		1		10/31/11 13:07
66	T1.103111.131122	IDL	IDL		1		10/31/11 13:11
67	T1.103111.131525	IDL	IDL		1		10/31/11 13:15
68	T1.103111.131919	IDL	IDL		1		10/31/11 13:19

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO1 Dataset: 103111.1
 Analyst1: PDM Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 39481

Calibration Std: STD47754 ICV Std: STD48173 Post Spike: STD45521
 ICSA: STD48178 ICSAB: STD48172 Int. Std: STD48022
 CCV: STD48175 LLCCV: _____

379981,580124,380735,380420,380702,380428,380070,380427

Workgroups:

Comments: Sequence 37 through 44 and 106 through 166 were not reported due to CCV failures

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
69	T1.103111.132311	WG380705-24	CCV		1		10/31/11 13:23
70	T1.103111.132650	WG380705-25	CCB		1		10/31/11 13:26
71	T1.103111.133042	WG380223-02	Method/Prep Blank	1/50	1		10/31/11 13:30
72	T1.103111.133437	WG380223-03	Laboratory Control S	1/50	1		10/31/11 13:34
73	T1.103111.133827	L11100824-01	13521-C0003	1.025/50	2		10/31/11 13:38
74	T1.103111.134210	WG380420-01	Post Digestion Spike		2	L11100824-01	10/31/11 13:42
75	T1.103111.134551	WG380420-02	Serial Dilution		10	L11100824-01	10/31/11 13:45
76	T1.103111.134938	WG380420-02	Serial Dilution		50	L11100824-01	10/31/11 13:49
77	T1.103111.135326	L11100824-02	13652-C0003	1.014/50	2		10/31/11 13:53
78	T1.103111.135708	L11100824-03	13679-C0003	1.016/50	2		10/31/11 13:57
79	T1.103111.140049	L11100824-04	13822-C0005	1.023/50	2		10/31/11 14:00
80	T1.103111.140431	L11100824-05	13847-C0006	1.005/50	2		10/31/11 14:04
81	T1.103111.140812	WG380705-26	CCV		1		10/31/11 14:08
82	T1.103111.141150	WG380705-27	CCB		1		10/31/11 14:11
83	T1.103111.141542	WG380223-01	Reference Sample		2	L11100824-06	10/31/11 14:15
84	T1.103111.141924	WG380223-04	Matrix Spike	1.028/50	2	L11100824-06	10/31/11 14:19
85	T1.103111.142305	WG380223-05	Matrix Spike Duplica	1.028/50	2	L11100824-06	10/31/11 14:23
86	T1.103111.142647	WG380705-28	CCV		1		10/31/11 14:26
87	T1.103111.143026	WG380705-29	CCB		1		10/31/11 14:30
88	T1.103111.143417	L11100783-03	31002-C0001	1.414/50	1		10/31/11 14:34
89	T1.103111.143807	L11100783-04	31002-C0002	1.419/50	1		10/31/11 14:38
90	T1.103111.144148	L11100783-05	31002-C0003	1.393/50	1		10/31/11 14:41
91	T1.103111.144539	L11100783-06	31002-C0004	1.325/50	1		10/31/11 14:45
92	T1.103111.144930	L11100783-07	31002-C0005	1.349/50	1		10/31/11 14:49
93	T1.103111.145320	L11100783-08	31002-C0006	1.469/50	1		10/31/11 14:53
94	T1.103111.145711	L11100783-09	31002-C0007	1.392/50	1		10/31/11 14:57
95	T1.103111.150052	WG380705-30	CCV		1		10/31/11 15:00
96	T1.103111.150431	WG380705-31	CCB		1		10/31/11 15:04
97	T1.103111.150822	L11100783-10	31002-C0008	1.387/50	1		10/31/11 15:08
98	T1.103111.151212	L11100783-11	31008-C0001	1.341/50	1		10/31/11 15:12
99	T1.103111.151603	L11100783-12	31008-C0002	1.429/50	1		10/31/11 15:16
100	T1.103111.151956	L11100783-13	31008-C0003	1.447/50	1		10/31/11 15:19
101	T1.103111.152345	L11100783-14	31008-C0004	1.482/50	1		10/31/11 15:23
102	T1.103111.152736	L11100783-15	31008-C0005	1.452/50	1		10/31/11 15:27

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO1 Dataset: 103111.1
 Analyst1: PDM Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 39481

Calibration Std: STD47754 ICV Std: STD48173 Post Spike: STD45521
 ICSA: STD48178 ICSAB: STD48172 Int. Std: STD48022
 CCV: STD48175 LLCCV: _____

379981,580124,380735,380420,380702,380428,380070,380427

Workgroups:

Comments: Sequence 37 through 44 and 106 through 166 were not reported due to CCV failures

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
103	T1.103111.153126	L11100783-16	31008-C0006	1.388/50	1		10/31/11 15:31
104	T1.103111.153516	WG380705-32	CCV		1		10/31/11 15:35
105	T1.103111.153854	WG380705-33	CCB		1		10/31/11 15:38
106	T1.103111.154247	WG380331-02	Method/Prep Blank		1		10/31/11 15:42
107	T1.103111.154639	WG380331-03	Laboratory Control S		1		10/31/11 15:46
108	T1.103111.155037	L11100827-01	11539-C0001		2		10/31/11 15:50
109	T1.103111.155430	WG380542-01	Post Digestion Spike		2	L11100827-02	10/31/11 15:54
110	T1.103111.155818	WG380542-02	Serial Dilution		10	L11100827-02	10/31/11 15:58
111	T1.103111.160202	WG380542-02	Serial Dilution		50	L11100827-02	10/31/11 16:02
112	T1.103111.160555	L11100827-02	11539-C0002		2		10/31/11 16:05
113	T1.103111.160946	L11100827-03	11539-C0003		2		10/31/11 16:09
114	T1.103111.161337	L11100827-04	11539-C0004		2		10/31/11 16:13
115	T1.103111.161728	L11100827-05	11539-C0005		2		10/31/11 16:17
116	T1.103111.162118	WG380705-34	CCV		1		10/31/11 16:21
117	T1.103111.162458	WG380705-35	CCB		1		10/31/11 16:24
118	T1.103111.162851	L11100827-06	11539-C0006		2		10/31/11 16:28
119	T1.103111.163242	L11100827-07	11539-C0007		2		10/31/11 16:32
120	T1.103111.163632	L11100827-08	11539-C0009		2		10/31/11 16:36
121	T1.103111.164023	L11100827-09	11539-C0010		2		10/31/11 16:40
122	T1.103111.164413	L11100827-10	11539-C0011		2		10/31/11 16:44
123	T1.103111.164804	L11100827-11	11539-C0012		2		10/31/11 16:48
124	T1.103111.165155	L11100827-12	11539-C0015		2		10/31/11 16:51
125	T1.103111.165546	L11100827-13	11539-C0016		2		10/31/11 16:55
126	T1.103111.165937	L11100827-14	11539-C0017		2		10/31/11 16:59
127	T1.103111.170328	L11100827-15	11539-C0018		2		10/31/11 17:03
128	T1.103111.170719	WG380705-36	CCV		1		10/31/11 17:07
129	T1.103111.171057	WG380705-37	CCB		1		10/31/11 17:10
130	T1.103111.171449	L11100827-16	11539-G0001		2		10/31/11 17:14
131	T1.103111.171840	L11100827-17	11539-G0002		2		10/31/11 17:18
132	T1.103111.172231	L11100827-18	13375-C0001		2		10/31/11 17:22
133	T1.103111.172613	L11100827-19	13375-C0002		2		10/31/11 17:26
134	T1.103111.172954	WG380331-01	Reference Sample		2	L11100827-20	10/31/11 17:29
135	T1.103111.173336	WG380331-04	Matrix Spike		2	L11100827-20	10/31/11 17:33
136	T1.103111.173718	WG380331-05	Matrix Spike Duplica		2	L11100827-20	10/31/11 17:37

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO1 Dataset: 103111.1
 Analyst1: PDM Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 39481

Calibration Std: STD47754 ICV Std: STD48173 Post Spike: STD45521
 ICSA: STD48178 IC SAB: STD48172 Int. Std: STD48022
 CCV: STD48175 LLCCV: _____

379981,580124,380735,380420,380702,380428,380070,380427

Workgroups:

Comments: Sequence 37 through 44 and 106 through 166 were not reported due to CCV failures

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
137	T1.103111.174100	WG380705-38	CCV		1		10/31/11 17:41
138	T1.103111.174438	WG380705-39	CCB		1		10/31/11 17:44
139	T1.103111.174830	WG379207-02	Method/Prep Blank		1		10/31/11 17:48
140	T1.103111.175222	WG379207-03	Laboratory Control S		1		10/31/11 17:52
141	T1.103111.175603	L11100441-01	G-GPBSD0026(0.0-0.5)		100		10/31/11 17:56
142	T1.103111.175952	WG379927-03	Post Digestion Spike		100	L11100441-01	10/31/11 17:59
143	T1.103111.180332	WG379927-04	Serial Dilution		500	L11100441-01	10/31/11 18:03
144	T1.103111.180723	L11100441-02	G-52SD005(0.0-0.5)		100		10/31/11 18:07
145	T1.103111.181115	L11100441-03	G-SD101(0.0-0.5)		100		10/31/11 18:11
146	T1.103111.181506	L11100441-04	D-SDBS023(0.0-0.5)		100		10/31/11 18:15
147	T1.103111.181856	L11100441-05	D-SDBS024(0.0-0.5)		100		10/31/11 18:18
148	T1.103111.182244	L11100441-06	D-SDBS025(0.0-0.5)		100		10/31/11 18:22
149	T1.103111.182635	WG380705-40	CCV		1		10/31/11 18:26
150	T1.103111.183014	WG380705-41	CCB		1		10/31/11 18:30
151	T1.103111.183407	L11100441-07	D-DUP001(0.0-0.5)		100		10/31/11 18:34
152	T1.103111.183758	L11100441-09	G-31SD004(0.0-0.5)		100		10/31/11 18:37
153	T1.103111.184151	L11100441-10	M-BSSD001(0.0-0.5)		100		10/31/11 18:41
154	T1.103111.184540	L11100441-11	H-BSSD015(0.0-0.5)		100		10/31/11 18:45
155	T1.103111.184931	L11100441-12	H-BSSD024(0.0-0.5)		100		10/31/11 18:49
156	T1.103111.185322	L11100441-13	H-BSSD032(0.0-0.5)		100		10/31/11 18:53
157	T1.103111.185713	L11100441-14	H-BSSD029(0.0-0.5)		100		10/31/11 18:57
158	T1.103111.190104	L11100441-15	H-BSSD034(0.0-0.5)		100		10/31/11 19:01
159	T1.103111.190453	L11100441-17	C-34SD003(0.0-0.5)		100		10/31/11 19:04
160	T1.103111.190845	L11100441-18	C-34SD004(0.0-0.5)		100		10/31/11 19:08
161	T1.103111.191233	WG380705-42	CCV		1		10/31/11 19:12
162	T1.103111.191612	WG380705-43	CCB		1		10/31/11 19:16
163	T1.103111.192005	L11100441-19	C-34SD005(0.0-0.5)		100		10/31/11 19:20
164	T1.103111.192356	WG379207-01	Reference Sample	1.388/50	100	L11100441-20	10/31/11 19:23
165	T1.103111.192748	WG379207-04	Matrix Spike		100	L11100441-20	10/31/11 19:27
166	T1.103111.193139	WG379207-05	Matrix Spike Duplica		100	L11100441-20	10/31/11 19:31
167	T1.103111.193531	WG380705-44	CCV		1		10/31/11 19:35
168	T1.103111.193910	WG380705-45	CCB		1		10/31/11 19:39
169	T1.103111.194302	WG380642-02	Method/Prep Blank	1/50	1		10/31/11 19:43
170	T1.103111.194707	WG380642-03	Laboratory Control S	1/50	1		10/31/11 19:47

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Microbac Laboratories Inc.

Instrument Run Log

Instrument: ICP-THERMO1 Dataset: 103111.1
 Analyst1: PDM Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 39481

Calibration Std: STD47754 ICV Std: STD48173 Post Spike: STD45521
 ICSA: STD48178 ICSAB: STD48172 Int. Std: STD48022
 CCV: STD48175 LLCCV: _____

379981,580124,380735,380420,380702,380428,380070,380427

Workgroups:

Comments: Sequence 37 through 44 and 106 through 166 were not reported due to CCV failures

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
171	T1.103111.195050	WG380642-01	Reference Sample		1	L11100963-24	10/31/11 19:50
172	T1.103111.195441	WG380642-04	Matrix Spike	1.423/50	1	L11100963-24	10/31/11 19:54
173	T1.103111.195828	WG380642-05	Matrix Spike Duplica	1.423/50	1	L11100963-24	10/31/11 19:58
174	T1.103111.200214	L11100963-28	10825-C0024	1.42/50	1		10/31/11 20:02
175	T1.103111.200605	L11100963-29	10825-C0025	1.441/50	1		10/31/11 20:06
176	T1.103111.200956	WG380702-01	Post Digestion Spike		1	L11100963-29	10/31/11 20:09
177	T1.103111.201343	WG380702-02	Serial Dilution		5	L11100963-29	10/31/11 20:13
178	T1.103111.201728	WG380702-02	Serial Dilution		25	L11100963-29	10/31/11 20:17
179	T1.103111.202116	WG380705-46	CCV		1		10/31/11 20:21
180	T1.103111.202455	WG380705-47	CCB		1		10/31/11 20:24
181	T1.103111.202847	L11100963-30	10825-C0026	1.473/50	1		10/31/11 20:28
182	T1.103111.203238	L11100963-31	10825-C0027	1.312/50	1		10/31/11 20:32
183	T1.103111.203629	L11100963-32	10825-C0028	1.354/50	1		10/31/11 20:36
184	T1.103111.204019	L11100963-33	10825-C0029	1.368/50	1		10/31/11 20:40
185	T1.103111.204401	L11100963-34	10825-C0030	1.415/50	1		10/31/11 20:44
186	T1.103111.204743	L11100963-35	10825-C0031	1.49/50	1		10/31/11 20:47
187	T1.103111.205135	L11100963-36	10825-C0032	1.312/50	1		10/31/11 20:51
188	T1.103111.205525	L11100963-37	10825-C0033	1.367/50	1		10/31/11 20:55
189	T1.103111.205913	L11100963-38	10825-C0034	1.352/50	1		10/31/11 20:59
190	T1.103111.210256	L11100963-39	10825-C0035	1.365/50	1		10/31/11 21:02
191	T1.103111.210647	WG380705-48	CCV		1		10/31/11 21:06
192	T1.103111.211025	WG380705-49	CCB		1		10/31/11 21:10
193	T1.103111.211417	L11100963-40	10825-C0036	1.329/50	1		10/31/11 21:14
194	T1.103111.211808	L11100963-41	10825-C0037	1.342/50	1		10/31/11 21:18
195	T1.103111.212159	L11101015-03	LF-W-N-1	1.396/50	1		10/31/11 21:21
196	T1.103111.212549	L11101038-01	11J1082-01	1.038/50	1		10/31/11 21:25
197	T1.103111.212936	L11101038-02	11J1082-02	1.04/50	1		10/31/11 21:29
198	T1.103111.213323	L11101038-03	11J1082-03	1.002/50	1		10/31/11 21:33
199	T1.103111.213710	L11101038-04	11J1082-04	1.032/50	1		10/31/11 21:37
200	T1.103111.214058	WG380705-50	CCV		1		10/31/11 21:40
201	T1.103111.214437	WG380705-51	CCB		1		10/31/11 21:44
202	T1.103111.214830	WG380181-02	Method/Prep Blank	1/50	1		10/31/11 21:48
203	T1.103111.215223	WG380181-03	Laboratory Control S	1/50	1		10/31/11 21:52
204	T1.103111.215604	L11100711-11	CY2SS1005AA	1.305/50	1		10/31/11 21:56

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO1 Dataset: 103111.1
 Analyst1: PDM Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 39481

Calibration Std: STD47754 ICV Std: STD48173 Post Spike: STD45521
 ICSA: STD48178 ICSAB: STD48172 Int. Std: STD48022
 CCV: STD48175 LLCCV: _____

379981,580124,380735,380420,380702,380428,380070,380427

Workgroups:

Comments: Sequence 37 through 44 and 106 through 166 were not reported due to CCV failures

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
205	T1.103111.215947	WG380428-01	Post Digestion Spike		1	L11100711-11	10/31/11 21:59
206	T1.103111.220327	WG380428-02	Serial Dilution		5	L11100711-11	10/31/11 22:03
207	T1.103111.220716	WG380428-02	Serial Dilution		25	L11100711-11	10/31/11 22:07
208	T1.103111.221107	L11100711-12	CY2SS1008AA		1	WG380181-01	10/31/11 22:11
209	T1.103111.221454	L11100711-13	CY2SS1101AA	1.37/50	100		10/31/11 22:14
210	T1.103111.221844	L11100711-14	CY2SS1105AA	1.422/50	1		10/31/11 22:18
211	T1.103111.222228	L11100711-15	CY2SS1108AA	1.41/50	1		10/31/11 22:22
212	T1.103111.222614	WG380705-52	CCV		1		10/31/11 22:26
213	T1.103111.222953	WG380705-53	CCB		1		10/31/11 22:29
214	T1.103111.223345	L11100711-16	CY2SS1201AA	1.37/50	100		10/31/11 22:33
215	T1.103111.223737	L11100711-17	CY2SS1205AA	1.432/50	1		10/31/11 22:37
216	T1.103111.224119	L11100711-18	CY2SS1208AA	1.365/50	1		10/31/11 22:41
217	T1.103111.224505	L11100711-19	CY2SS1501AA	1.465/50	100		10/31/11 22:45
218	T1.103111.224856	L11100711-20	CY2SS1505AA	1.386/50	1		10/31/11 22:48
219	T1.103111.225240	L11100711-21	CY2SS0101AA	1.426/50	1		10/31/11 22:52
220	T1.103111.225625	L11100711-22	CY2SS0105AA	1.488/50	1		10/31/11 22:56
221	T1.103111.230011	L11100711-23	CY2SS0108AA	1.446/50	1		10/31/11 23:00
222	T1.103111.230356	L11100711-24	CY2SS0108AC	1.443/50	1		10/31/11 23:03
223	T1.103111.230740	L11100711-25	CY2SS0201AA	1.328/50	1		10/31/11 23:07
224	T1.103111.231124	WG380705-54	CCV		1		10/31/11 23:11
225	T1.103111.231503	WG380705-55	CCB		1		10/31/11 23:15
226	T1.103111.231858	L11100711-26	CY2SS0205AA	1.459/50	1		10/31/11 23:18
227	T1.103111.232242	L11100711-27	CY2SS0208AA	1.32/50	1		10/31/11 23:22
228	T1.103111.232627	L11100711-28	CY2SS1708AA	1.377/50	1		10/31/11 23:26
229	T1.103111.233013	L11100711-29	CY2SS0601AA	1.39/50	100		10/31/11 23:30
230	T1.103111.233405	L11100711-30	CY2SS0605AA	1.472/50	1		10/31/11 23:34
231	T1.103111.233749	WG380181-04	Matrix Spike	1.479/50	1	L11100711-12	10/31/11 23:37
232	T1.103111.234130	WG380181-05	Matrix Spike Duplica	1.479/50	1	L11100711-12	10/31/11 23:41
233	T1.103111.234511	WG380705-56	CCV		1		10/31/11 23:45
234	T1.103111.234850	WG380705-57	CCB		1		10/31/11 23:48
235	T1.103111.235243	WG379655-02	Method/Prep Blank	1/50	1		10/31/11 23:52
236	T1.103111.235637	WG379655-03	Laboratory Control S	1/50	1		10/31/11 23:56
237	T1.110111.000026	L11100664-24	31020-C0003	1.368/50	1		11/01/11 00:00
238	T1.110111.000417	WG380070-01	Post Digestion Spike		1	L11100664-28	11/01/11 00:04

Page: 7 Approved: November 02, 2011

Maren Beery



Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO1 Dataset: 103111.1
 Analyst1: PDM Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 39481

Calibration Std: STD47754 ICV Std: STD48173 Post Spike: STD45521
 ICSA: STD48178 ICSAB: STD48172 Int. Std: STD48022
 CCV: STD48175 LLCCV: _____

379981,580124,380735,380420,380702,380428,380070,380427

Workgroups:

Comments: Sequence 37 through 44 and 106 through 166 were not reported due to CCV failures

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
239	T1.110111.000805	WG380070-02	Serial Dilution		5	L11100664-28	11/01/11 00:08
240	T1.110111.001150	WG380070-02	Serial Dilution		25	L11100664-28	11/01/11 00:11
241	T1.110111.001539	L11100664-25	31020-C0004	1.324/50	1		11/01/11 00:15
242	T1.110111.001930	L11100664-26	31020-C0005	1.331/50	1		11/01/11 00:19
243	T1.110111.002313	L11100664-27	31020-C0006	1.44/50	1		11/01/11 00:23
244	T1.110111.002705	L11100664-28	31020-C0007	1.359/50	1		11/01/11 00:27
245	T1.110111.003056	WG380705-58	CCV		1		11/01/11 00:30
246	T1.110111.003435	WG380705-59	CCB		1		11/01/11 00:34
247	T1.110111.003828	L11100664-29	31020-C0008	1.491/50	1		11/01/11 00:38
248	T1.110111.004219	WG379655-01	Reference Sample		1	L11100664-30	11/01/11 00:42
249	T1.110111.004611	WG379655-04	Matrix Spike	1.36/50	1	L11100664-30	11/01/11 00:46
250	T1.110111.005001	WG379655-05	Matrix Spike Duplica	1.36/50	1	L11100664-30	11/01/11 00:50
251	T1.110111.005352	L11100664-33	31020-C0010	1.358/50	1		11/01/11 00:53
252	T1.110111.005744	L11100664-34	31020-C0011	1.375/50	1		11/01/11 00:57
253	T1.110111.010135	L11100664-35	31020-C0012	1.327/50	1		11/01/11 01:01
254	T1.110111.010526	L11100664-36	31020-C0013	1.392/50	1		11/01/11 01:05
255	T1.110111.010917	L11100664-37	31020-C0014	1.315/50	1		11/01/11 01:09
256	T1.110111.011259	L11100664-38	31020-C0015	1.318/50	1		11/01/11 01:12
257	T1.110111.011642	WG380705-60	CCV		1		11/01/11 01:16
258	T1.110111.012023	WG380705-61	CCB		1		11/01/11 01:20
259	T1.110111.012416	L11100664-39	31020-C0016	1.455/50	1		11/01/11 01:24
260	T1.110111.012807	L11100664-40	31020-C0017	1.376/50	1		11/01/11 01:28
261	T1.110111.013158	L11100664-41	31020-C0018	1.336/50	1		11/01/11 01:31
262	T1.110111.013549	L11100664-42	31020-C0019	1.436/50	1		11/01/11 01:35
263	T1.110111.013940	L11100664-43	31020-C0020	1.438/50	1		11/01/11 01:39
264	T1.110111.014331	L11100664-44	31020-C0021	1.443/50	1		11/01/11 01:43
265	T1.110111.014722	L11100664-45	31020-C0022	1.311/50	1		11/01/11 01:47
266	T1.110111.015113	WG380705-62	Linear Range Check		1		11/01/11 01:51
267	T1.110111.015513	WG380705-62	Linear Range Check		1		11/01/11 01:55
268	T1.110111.015903	RINSE	RINSE		1		11/01/11 01:59
269	T1.110111.020257	WG380705-63	CCV		1		11/01/11 02:02
270	T1.110111.020636	WG380705-64	CCB		1		11/01/11 02:06
271	T1.110111.021029	WG380705-65	Interference Check		1		11/01/11 02:10
272	T1.110111.021427	WG380705-66	Interference Check		1		11/01/11 02:14

Page: 8 Approved: November 02, 2011

Maren Beery



Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO1 Dataset: 103111.1
 Analyst1: PDM Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 39481

Calibration Std: STD47754 ICV Std: STD48173 Post Spike: STD45521
 ICSA: STD48178 ICSAB: STD48172 Int. Std: STD48022
 CCV: STD48175 LLCCV: _____

379981,580124,380735,380420,380702,380428,380070,380427

Workgroups:

Comments: Sequence 37 through 44 and 106 through 166 were not reported due to CCV failures

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
273	T1.110111.021819	WG380705-67	CCV		1		11/01/11 02:18
274	T1.110111.022159	WG380705-68	CCB		1		11/01/11 02:21
275	T1.110111.022551	WG380027-02	Method/Prep Blank	1/50	1		11/01/11 02:25
276	T1.110111.022944	WG380027-03	Laboratory Control S	1/50	1		11/01/11 02:29
277	T1.110111.023326	L11100711-01	CY2SS0501AA		100	WG380027-01	11/01/11 02:33
278	T1.110111.023717	WG380027-01	Reference Sample	1.485/50	100	L11100711-01	11/01/11 02:37
279	T1.110111.024109	L11100711-03	CY2SS0501AD	1.485/50	100	WG380027-05	11/01/11 02:41
280	T1.110111.024502	L11100711-04	CY2SS0505AA		1		11/01/11 02:45
281	T1.110111.024845	L11100711-05	CY2SS0508AA	1.477/50	1		11/01/11 02:48
282	T1.110111.025232	WG380427-01	Post Digestion Spike		1	L11100711-05	11/01/11 02:52
283	T1.110111.025613	WG380427-02	Serial Dilution		5	L11100711-05	11/01/11 02:56
284	T1.110111.030004	WG380427-02	Serial Dilution		25	L11100711-05	11/01/11 03:00
285	T1.110111.030356	WG380705-69	CCV		1		11/01/11 03:03
286	T1.110111.030736	WG380705-70	CCB		1		11/01/11 03:07
287	T1.110111.031129	L11100711-06	CY2SS0401AA	1.402/50	100		11/01/11 03:11
288	T1.110111.031520	L11100711-07	CY2SS0405AA	1.46/50	1		11/01/11 03:15
289	T1.110111.031908	L11100711-08	CY2SS0408AA	1.457/50	1		11/01/11 03:19
290	T1.110111.032254	L11100711-09	CY2SS0408AC	1.435/50	1		11/01/11 03:22
291	T1.110111.032637	L11100711-10	CY2SS1001AA	1.431/50	100		11/01/11 03:26
292	T1.110111.033030	L11100763-03	IDW-SMIU2-10202011	1.406/50	1		11/01/11 03:30
293	T1.110111.033421	L11100767-01	1112PWT025PC-A	1.377/50	1		11/01/11 03:34
294	T1.110111.033810	L11100767-03	1112PWT025PC-B	1.361/50	1		11/01/11 03:38
295	T1.110111.034201	L11100767-05	1112PWT025PC-C	1.444/50	1		11/01/11 03:42
296	T1.110111.034600	L11100810-05	TAC11-MW1017D-S-1-85	1.333/50	1		11/01/11 03:46
297	T1.110111.034950	WG380705-71	CCV		1		11/01/11 03:49
298	T1.110111.035330	WG380705-72	CCB		1		11/01/11 03:53
299	T1.110111.035722	L11100810-06	TAC11-MW1017D-S-1-100	1.352/50	1		11/01/11 03:57
300	T1.110111.040108	L11100810-07	TAC06-MW1018D-S-1-85	1.315/50	1		11/01/11 04:01
301	T1.110111.040453	L11100810-08	TAC06-MW1018D-S-1-100	1.443/50	1		11/01/11 04:04
302	T1.110111.040836	L11100810-09	TAC08-MW1007D-S-1-85	1.367/50	1		11/01/11 04:08
303	T1.110111.041220	L11100810-10	TAC08-MW1007D-S-1-100	1.494/50	1		11/01/11 04:12
304	T1.110111.041602	L11100810-11	TAC12-MW1019D-S-1-86	1.323/50	1		11/01/11 04:16
305	T1.110111.041946	L11100810-12	TAC12-MW1019D-S-1-100	1.474/50	1		11/01/11 04:19
306	T1.110111.042337	WG380705-73	CCV		1		11/01/11 04:23

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Maren Beery



Microbac Laboratories Inc.

Instrument Run Log

Instrument: ICP-THERMO1 Dataset: 103111.1
 Analyst1: PDM Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 39481

Calibration Std: STD47754 ICV Std: STD48173 Post Spike: STD45521
 ICSA: STD48178 ICSAB: STD48172 Int. Std: STD48022
 CCV: STD48175 LLCCV: _____

379981,580124,380735,380420,380702,380428,380070,380427

Workgroups:

Comments: Sequence 37 through 44 and 106 through 166 were not reported due to CCV failures

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
307	T1.110111.042717	WG380705-74	CCB		1		11/01/11 04:27
308	T1.110111.043109	WG380705-75	Interference Check		1		11/01/11 04:31
309	T1.110111.043507	WG380705-76	Interference Check		1		11/01/11 04:35
310	T1.110111.043859	WG380705-77	CCV		1		11/01/11 04:38
311	T1.110111.044247	WG380705-78	CCB		1		11/01/11 04:42

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Maren Beery



Microbac Laboratories Inc.

Data Checklist

Date: 17-OCT-2011
 Analyst: EDL
 Analyst: NA
 Method: 6010
 Instrument: ICP-THERMO2
 Curve Workgroup: 379212
 Runlog ID: 43235
 Analytical Workgroups: 378791, 379174, 379178, 379202, 379206, 379215, 379216, 379217

Additional Workgroups:	379218, 379219, 379220
Calibration/Linearity	X
ICV/CCV	X
ICB/CCB	X
ICSA/ICSAB	X
CRI	
Blank/LCS	X
MS/MSD	X
Post Spike/Serial Dilution	X
Upload Results	X
Data Qualifiers	X
Generate PDF Instrument Data	X
Sign/Annotate PDF Data	X
Upload Curve Data	X
Workgroup Forms	X
Case Narrative	244, 263, 350, 397, 398, 434, 468
Case Narrative (Continued)	247, 249, 221, 222, 340
Client Forms	X
Level X	
Level 3	
Level 4	244, 263, 350, 434, 468, 247, 249
Level 4 (Continued)	221, 222, 340
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Primary Reviewer	EDL
Secondary Reviewer	MMB
Comments	

Primary Reviewer:
18-OCT-2011

Erin D. Long

Secondary Reviewer:
18-OCT-2011

Maren Beery



Microbac Laboratories Inc.

Data Checklist

Date: 18-OCT-2011
 Analyst: EDL
 Analyst: NA
 Method: 6010
 Instrument: ICP-THERMO2
 Curve Workgroup: 379358
 Runlog ID: 43275
 Analytical Workgroups: 379174, 379347, 379348, 379369, 379371, 379371

Calibration/Linearity	X
ICV/CCV	X
ICB/CCB	X
ICSA/ICSAB	X
CRI	
Blank/LCS	X
MS/MSD	X
Post Spike/Serial Dilution	X
Upload Results	X
Data Qualifiers	X
Generate PDF Instrument Data	X
Sign/Annotate PDF Data	X
Upload Curve Data	X
Workgroup Forms	X
Case Narrative	397, 398, 434, 483, 342, 344, 345
Client Forms	X
Level X	
Level 3	
Level 4	434, 483, 342, 344, 345
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Primary Reviewer	EDL
Secondary Reviewer	MMB
Comments	

Primary Reviewer:
19-OCT-2011

Erin D. Long

Secondary Reviewer:
19-OCT-2011

Maren Berry



Microbac Laboratories Inc.

Data Checklist

Date: 20-OCT-2011
 Analyst: PDM
 Analyst: NA
 Method: 6010
 Instrument: ICP-THERMO1
 Curve Workgroup: 379768
 Runlog ID: 43342
 Analytical Workgroups: 379620,379621,379688,379537,379540

Calibration/Linearity	X
ICV/CCV	X
ICB/CCB	X
ICSA/ICSAB	X
CRI	
Blank/LCS	X
MS/MSD	X
Post Spike/Serial Dilution	X
Upload Results	X
Data Qualifiers	
Generate PDF Instrument Data	X
Sign/Annotate PDF Data	X
Upload Curve Data	X
Workgroup Forms	X
Case Narrative	0292,0293,0434,0480,0483,0800,0291
Client Forms	X
Level X	
Level 3	
Level 4	0292,0293,0434,0480,0483,0800,0291
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Primary Reviewer	PDM
Secondary Reviewer	SLP
Comments	

Primary Reviewer:
21-OCT-2011

Secondary Reviewer:
26-OCT-2011

Pierce Morris *Shari L. Babcock*



Microbac Laboratories Inc.

Data Checklist

Date: 21-OCT-2011
 Analyst: PDM
 Analyst: NA
 Method: 6010
 Instrument: ICP-THEMRO1
 Curve Workgroup: 379827
 Runlog ID: 43369
 Analytical Workgroups: 379617,379540,379547,379551,379524,379599,379702,379703

Additional Workgroups:	379704,379400,379537,379538 379539,379620,379821,379822 379823
Calibration/Linearity	X
ICV/CCV	X
ICB/CCB	X
ICSA/ICSAB	X
CRI	
Blank/LCS	X
MS/MSD	X
Post Spike/Serial Dilution	X
Upload Results	X
Data Qualifiers	
Generate PDF Instrument Data	X
Sign/Annotate PDF Data	X
Upload Curve Data	X
Workgroup Forms	X
Case Narrative	0291,0292,0402,0263,0290,0483,0484, 0347,0485,0487,0488,0489
Client Forms	X
Level X	
Level 3	
Level 4	0291,0292,0402,0263,0290,0483,0484, 0347,0485,0487,0488,0489
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Primary Reviewer	PDM
Secondary Reviewer	MMB
Comments	

Primary Reviewer:
24-OCT-2011

Secondary Reviewer:
25-OCT-2011

Pierce Morris

Maren Berry



Microbac Laboratories Inc.

Data Checklist

Date: 24-OCT-2011
 Analyst: PDM
 Analyst: NA
 Method: 6010
 Instrument: ICP-THERMO1
 Curve Workgroup: 379938
 Runlog ID: 43378
 Analytical Workgroups: 379923,379889,379890,379926,379927,379978,379979,379980

	379981
Calibration/Linearity	X
ICV/CCV	X
ICB/CCB	X
ICSA/ICSAB	X
CRI	
Blank/LCS	X
MS/MSD	X
Post Spike/Serial Dilution	X
Upload Results	X
Data Qualifiers	
Generate PDF Instrument Data	X
Sign/Annotate PDF Data	X
Upload Curve Data	X
Workgroup Forms	X
Case Narrative	0551,0671,0672,0489,0490,0662,0593 0435,0441,0663,0434
Client Forms	X
Level X	
Level 3	
Level 4	0551,0671,0672,0489,0490,0662,0593 0435,0441,0663,0434
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Primary Reviewer	PDM
Secondary Reviewer	MMB
Comments	

Primary Reviewer:
25-OCT-2011

Secondary Reviewer:
28-OCT-2011

Pierce Morris *Maren Beery*



Microbac Laboratories Inc.

Data Checklist

Date: 26-OCT-2011
 Analyst: PDM
 Analyst: NA
 Method: 6010
 Instrument: ICP-THERMO1
 Curve Workgroup: 380270
 Runlog ID: 43431
 Analytical Workgroups: 379926,379927,379524,380125,380129,380133,380049,379979

Additional Workgroups	380124, 380266,380292,380300 379620,380293
Calibration/Linearity	X
ICV/CCV	X
ICB/CCB	X
ICSA/ICSAB	X
CRI	
Blank/LCS	X
MS/MSD	X
Post Spike/Serial Dilution	X
Upload Results	X
Data Qualifiers	
Generate PDF Instrument Data	X
Sign/Annotate PDF Data	X
Upload Curve Data	X
Workgroup Forms	X
Case Narrative	0593,0441,0263,0668,0667,0669,0670 0664,06620783,0871,0575,0576,0786 0883,0434
Client Forms	X
Level X	
Level 3	
Level 4	0593,0441,0263,0668,0667,0669,0670 0664,06620783,0871,0575,0576,0786 0883,0434
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Primary Reviewer	PDM
Secondary Reviewer	MMB
Comments	

Primary Reviewer:
27-OCT-2011

Secondary Reviewer:
28-OCT-2011

Pierce Morris *Maren Beery*



Microbac Laboratories Inc.

Data Checklist

Date: 31-OCT-2011
 Analyst: PDM
 Analyst: NA
 Method: 6010
 Instrument: ICP-THERMO1
 Curve Workgroup: 380705
 Runlog ID: 43498
 Analytical Workgroups: 379981,580124,380735,380420,380702,380428,380070,380427

Calibration/Linearity	X
ICV/CCV	X
ICB/CCB	X
ICSA/ICSAB	X
CRI	
Blank/LCS	X
MS/MSD	X
Post Spike/Serial Dilution	X
Upload Results	X
Data Qualifiers	
Generate PDF Instrument Data	X
Sign/Annotate PDF Data	X
Upload Curve Data	X
Workgroup Forms	X
Case Narrative	0434,0667,0824,0783,0963,1015,1038 0711,0664,0763,0767,0810
Client Forms	X
Level X	
Level 3	
Level 4	0434,0667,0824,0783,0963,1015,1038 0711,0664,0763,0767,0810
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Primary Reviewer	PDM
Secondary Reviewer	MMB
Comments	

Primary Reviewer:
01-NOV-2011

Secondary Reviewer:
02-NOV-2011

Pierce Morris *Maren Beery*



Microbac Laboratories Inc.
HOLDING TIMES
 EQUIVALENT TO AFCEE FORM 9

Analytical Method:6010B

AAB#:WG379981

Login Number:L11100434

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
DE-32D-10102011	20	10/10/11					10/17/11	6.9	180		10/25/11	14.5	180	
DE-32D-10102011MS	21	10/10/11					10/17/11	6.9	180		10/25/11	14.5	180	
DE-32D-10102011MSD	22	10/10/11					10/17/11	6.9	180		10/25/11	14.5	180	
DE-33D-10102011	27	10/10/11					10/17/11	6.8	180		10/25/11	14.5	180	
DE-33E-10102011	28	10/10/11					10/17/11	6.8	180		10/25/11	14.5	180	
DE-33F-10102011	29	10/10/11					10/17/11	6.8	180		10/31/11	20.7	180	
DE-33F-10102011	29	10/10/11					10/17/11	6.8	180		10/25/11	14.5	180	
DE-33G-10102011	30	10/10/11					10/17/11	6.8	180		10/31/11	20.7	180	
DE-33G-10102011	30	10/10/11					10/17/11	6.8	180		10/25/11	14.5	180	
DUP-SOIL-10102011-01	31	10/10/11					10/17/11	7.1	180		10/25/11	14.8	180	
DUP-SOIL-10102011-01	31	10/10/11					10/17/11	7.1	180		10/31/11	21.1	180	
DUP-SOIL-10102011-02	32	10/10/11					10/17/11	7.1	180		10/25/11	14.8	180	
DUP-SOIL-10102011-02	32	10/10/11					10/17/11	7.1	180		10/31/11	21.1	180	
DE-29A-10112011	33	10/11/11					10/17/11	6.1	180		10/31/11	20.1	180	
DE-29A-10112011	33	10/11/11					10/17/11	6.1	180		10/25/11	13.8	180	
DE-29B-10112011	34	10/11/11					10/17/11	6.1	180		10/31/11	20.1	180	
DE-29B-10112011	34	10/11/11					10/17/11	6.1	180		10/25/11	13.8	180	
DE-29C-10112011	35	10/11/11					10/17/11	6.1	180		10/25/11	13.8	180	
DE-29C-10112011	35	10/11/11					10/17/11	6.1	180		10/31/11	20.1	180	
DE-29D-10112011	36	10/11/11					10/17/11	6.1	180		10/25/11	13.8	180	
DE-29D-10112011	36	10/11/11					10/17/11	6.1	180		10/31/11	20.1	180	
DE-29F-10112011	40	10/11/11					10/17/11	6.1	180		10/31/11	20.1	180	
DE-29F-10112011	40	10/11/11					10/17/11	6.1	180		10/25/11	13.8	180	
DE-29G-10112011	41	10/11/11					10/17/11	6.1	180		10/31/11	20.1	180	
DE-29G-10112011	41	10/11/11					10/17/11	6.1	180		10/25/11	13.8	180	
DE-28A-10112011	42	10/11/11					10/17/11	6.1	180		10/25/11	13.8	180	
DE-28A-10112011	42	10/11/11					10/17/11	6.1	180		10/31/11	20.1	180	
DE-28B-10112011	43	10/11/11					10/17/11	6.1	180		10/25/11	13.8	180	
DE-28B-10112011	43	10/11/11					10/17/11	6.1	180		10/31/11	20.1	180	
DE-28C-10112011	44	10/11/11					10/17/11	6.1	180		10/31/11	20.1	180	
DE-28C-10112011	44	10/11/11					10/17/11	6.1	180		10/25/11	13.8	180	
DE-28D-10112011	45	10/11/11					10/17/11	6.1	180		10/25/11	13.8	180	
DE-28D-10112011	45	10/11/11					10/17/11	6.1	180		10/31/11	20.1	180	
DE-28E-10112011	46	10/11/11					10/17/11	6.1	180		10/25/11	13.8	180	
DE-28E-10112011	46	10/11/11					10/17/11	6.1	180		10/31/11	20.1	180	
DE-28F-10112011	47	10/11/11					10/17/11	6.1	180		10/31/11	20.1	180	
DE-28F-10112011	47	10/11/11					10/17/11	6.1	180		10/25/11	13.8	180	
DE-28G-10112011	48	10/11/11					10/17/11	6.1	180		10/25/11	13.8	180	
DE-28G-10112011	48	10/11/11					10/17/11	6.1	180		10/31/11	20.1	180	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
 PDF File ID: 2190580
 Report generated 11/01/2011 10:33



Microbac Laboratories Inc.
HOLDING TIMES
 EQUIVALENT TO AFCEE FORM 9

Analytical Method:6010B
 Login Number:L11100434

AAB#:WG379620

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
DE-32C-10102011	19	10/10/11					10/17/11	6.8	180		10/27/11	16.5	180	
DE-32E-10102011	23	10/10/11					10/17/11	6.8	180		10/27/11	16.5	180	
DE-33A-10102011	24	10/10/11					10/17/11	6.8	180		10/27/11	16.5	180	
DE-33B-10102011	25	10/10/11					10/17/11	6.8	180		10/27/11	16.5	180	
DE-33C-10102011	26	10/10/11					10/17/11	6.8	180		10/27/11	16.5	180	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
 PDF File ID: 2190580
 Report generated 11/01/2011 10:33



Microbac Laboratories Inc.
HOLDING TIMES
 EQUIVALENT TO AFCEE FORM 9

Analytical Method:6010B
 Login Number:L11100434

AAB#:WG379202

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
DE-30A-10102011	01	10/10/11					10/17/11	6.8	180		10/17/11	7	180	
DE-30B-10102011	02	10/10/11					10/17/11	6.8	180		10/17/11	7	180	
DE-30C-10102011	03	10/10/11					10/17/11	6.8	180		10/17/11	7	180	
DE-30D-10102011	04	10/10/11					10/17/11	6.8	180		10/17/11	7	180	
DE-30E-10102011	05	10/10/11					10/17/11	6.8	180		10/17/11	7	180	
DE-30F-10102011	06	10/10/11					10/17/11	6.8	180		10/17/11	7	180	
DE-30G-10102011	07	10/10/11					10/17/11	6.7	180		10/17/11	7	180	
DE-31A-10102011	08	10/10/11					10/17/11	6.7	180		10/17/11	7	180	
DE-31B-10102011	09	10/10/11					10/17/11	6.7	180		10/17/11	7	180	
DE-31C-10102011	10	10/10/11					10/17/11	6.7	180		10/17/11	7	180	
DE-31D-10102011	11	10/10/11					10/17/11	6.7	180		10/17/11	7	180	
DE-31E-10102011	12	10/10/11					10/17/11	6.7	180		10/17/11	7	180	
DE-31F-10102011	13	10/10/11					10/17/11	6.7	180		10/17/11	7	180	
DE-31G-10102011	14	10/10/11					10/17/11	6.7	180		10/17/11	7	180	
DE-31G-10102011MS	15	10/10/11					10/17/11	6.7	180		10/17/11	7	180	
DE-31G-10102011MSD	16	10/10/11					10/17/11	6.7	180		10/17/11	7	180	
DE-32A-10102011	17	10/10/11					10/17/11	6.7	180		10/17/11	7	180	
DE-32B-10102011	18	10/10/11					10/17/11	6.7	180		10/17/11	7	180	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
 PDF File ID: 2184419
 Report generated 10/18/2011 14:05



Microbac Laboratories Inc.
HOLDING TIMES
 EQUIVALENT TO AFCEE FORM 9

Analytical Method:6010B
 Login Number:L11100434

AAB#:WG379347

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
DE-29E-10112011	37	10/11/11					10/18/11	7	180		10/18/11	7.1	180	
DE-29E-10112011MS	38	10/11/11					10/18/11	6.9	180		10/18/11	7.1	180	
DE-29E-10112011MSD	39	10/11/11					10/18/11	6.9	180		10/18/11	7.1	180	
DE-27A-10112011	49	10/11/11					10/18/11	6.9	180		10/18/11	7.1	180	
DE-27B-10112011	50	10/11/11					10/18/11	6.9	180		10/18/11	7.1	180	
DE-27C-10112011	51	10/11/11					10/18/11	6.9	180		10/18/11	7.1	180	
DE-27D-10112011	52	10/11/11					10/18/11	6.9	180		10/18/11	7.1	180	
DE-27E-10112011	53	10/11/11					10/18/11	6.9	180		10/18/11	7.1	180	
DE-27F-10112011	54	10/11/11					10/18/11	6.9	180		10/18/11	7.1	180	
DE-27G-10112011	55	10/11/11					10/18/11	6.9	180		10/18/11	7.1	180	
DUP-SOIL-10112011-01	56	10/11/11					10/18/11	7	180		10/18/11	7.2	180	
DUP-SOIL-10112011-02	57	10/11/11					10/18/11	7	180		10/18/11	7.2	180	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
 PDF File ID: 2184419
 Report generated 10/18/2011 14:05



METHOD BLANK SUMMARY

Login Number: L11100434
 Blank File ID: T1.102511.021728
 Prep Date: 10/17/11 11:29
 Analyzed Date: 10/25/11 02:17
 Analyst: PDM

Work Group: WG379981
 Blank Sample ID: WG379213-02
 Instrument ID: ICP-THERMO1
 Method: 6010B

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG379213-03	T1.102511.022111	10/25/11 02:21	01
DE-32D-10102011	L11100434-20	T1.102511.022442	10/25/11 02:24	01
DE-32D-10102011MS	L11100434-21	T1.102511.022823	10/25/11 02:28	01
DE-32D-10102011MSD	L11100434-22	T1.102511.023200	10/25/11 02:32	01
DE-33D-10102011	L11100434-27	T1.102511.023538	10/25/11 02:35	01
DE-33E-10102011	L11100434-28	T1.102511.023920	10/25/11 02:39	01
DE-33F-10102011	L11100434-29	T1.102511.030125	10/25/11 03:01	01
DE-33G-10102011	L11100434-30	T1.102511.030515	10/25/11 03:05	01
DUP-SOIL-10102011-01	L11100434-31	T1.102511.030856	10/25/11 03:08	01
DUP-SOIL-10102011-02	L11100434-32	T1.102511.031240	10/25/11 03:12	01
DE-29A-10112011	L11100434-33	T1.102511.031622	10/25/11 03:16	01
DE-29B-10112011	L11100434-34	T1.102511.031953	10/25/11 03:19	01
DE-29C-10112011	L11100434-35	T1.102511.032326	10/25/11 03:23	01
DE-29D-10112011	L11100434-36	T1.102511.032708	10/25/11 03:27	01
DE-29F-10112011	L11100434-40	T1.102511.033051	10/25/11 03:30	01
DE-29G-10112011	L11100434-41	T1.102511.033440	10/25/11 03:34	01
DE-28A-10112011	L11100434-42	T1.102511.034535	10/25/11 03:45	01
DE-28B-10112011	L11100434-43	T1.102511.034915	10/25/11 03:49	01
DE-28C-10112011	L11100434-44	T1.102511.035256	10/25/11 03:52	01
DE-28D-10112011	L11100434-45	T1.102511.035629	10/25/11 03:56	01
DE-28E-10112011	L11100434-46	T1.102511.040018	10/25/11 04:00	01
DE-28F-10112011	L11100434-47	T1.102511.040407	10/25/11 04:04	01
DE-28G-10112011	L11100434-48	T1.102511.040749	10/25/11 04:07	01
DE-33F-10102011	L11100434-29	T1.103111.094448	10/31/11 09:44	02
DE-33G-10102011	L11100434-30	T1.103111.094840	10/31/11 09:48	02
DUP-SOIL-10102011-01	L11100434-31	T1.103111.095231	10/31/11 09:52	02
DUP-SOIL-10102011-02	L11100434-32	T1.103111.095621	10/31/11 09:56	02
DE-29A-10112011	L11100434-33	T1.103111.100011	10/31/11 10:00	02
DE-29B-10112011	L11100434-34	T1.103111.100349	10/31/11 10:03	02
DE-29C-10112011	L11100434-35	T1.103111.100733	10/31/11 10:07	02
DE-29D-10112011	L11100434-36	T1.103111.101123	10/31/11 10:11	02
DE-29F-10112011	L11100434-40	T1.103111.101514	10/31/11 10:15	02
DE-29G-10112011	L11100434-41	T1.103111.101905	10/31/11 10:19	02
DE-28A-10112011	L11100434-42	T1.103111.103026	10/31/11 10:30	02
DE-28B-10112011	L11100434-43	T1.103111.103413	10/31/11 10:34	02
DE-28C-10112011	L11100434-44	T1.103111.103803	10/31/11 10:38	02
DE-28D-10112011	L11100434-45	T1.103111.104145	10/31/11 10:41	02
DE-28E-10112011	L11100434-46	T1.103111.104535	10/31/11 10:45	02
DE-28F-10112011	L11100434-47	T1.103111.104925	10/31/11 10:49	02

Report Name: BLANK_SUMMARY
 PDF File ID: 2190581
 Report generated 11/01/2011 10:33



METHOD BLANK SUMMARY

DE-28G-10112011	L11100434-48	T1.103111.105318	10/31/11 10:53	02
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Report Name: BLANK_SUMMARY
PDF File ID: 2190581
Report generated 11/01/2011 10:33



METHOD BLANK SUMMARY

Login Number: L11100434 Work Group: WG379620
 Blank File ID: T1.102711.020706 Blank Sample ID: WG379198-02
 Prep Date: 10/17/11 09:59 Instrument ID: ICP-THERMO1
 Analyzed Date: 10/27/11 02:07 Method: 6010B
 Analyst: PDM

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG379198-03	T1.102011.090426	10/20/11 09:04	01
LCS	WG379198-03	T1.102711.021057	10/27/11 02:10	02
DE-32C-10102011	L11100434-19	T1.102711.021433	10/27/11 02:14	01
DE-32E-10102011	L11100434-23	T1.102711.022932	10/27/11 02:29	01
DE-33A-10102011	L11100434-24	T1.102711.023321	10/27/11 02:33	01
DE-33B-10102011	L11100434-25	T1.102711.023709	10/27/11 02:37	01
DE-33C-10102011	L11100434-26	T1.102711.024056	10/27/11 02:40	01

Report Name: BLANK_SUMMARY
 PDF File ID: 2190581
 Report generated 11/01/2011 10:33



METHOD BLANK SUMMARY

Login Number: L11100434 Work Group: WG379202
 Blank File ID: T2.101711.123348 Blank Sample ID: WG379148-02
 Prep Date: 10/17/11 07:42 Instrument ID: ICP-THERMO2
 Analyzed Date: 10/17/11 12:33 Method: 6010B
 Analyst: EDL

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG379148-03	T2.101711.123711	10/17/11 12:37	01
DE-30A-10102011	L11100434-01	T2.101711.124022	10/17/11 12:40	01
DE-30B-10102011	L11100434-02	T2.101711.124343	10/17/11 12:43	01
DE-30C-10102011	L11100434-03	T2.101711.124658	10/17/11 12:46	01
DE-30D-10102011	L11100434-04	T2.101711.125006	10/17/11 12:50	01
DE-30E-10102011	L11100434-05	T2.101711.125320	10/17/11 12:53	01
DE-30F-10102011	L11100434-06	T2.101711.131254	10/17/11 13:12	01
DE-30G-10102011	L11100434-07	T2.101711.131616	10/17/11 13:16	01
DE-31A-10102011	L11100434-08	T2.101711.131936	10/17/11 13:19	01
DE-31B-10102011	L11100434-09	T2.101711.132308	10/17/11 13:23	01
DE-31C-10102011	L11100434-10	T2.101711.132615	10/17/11 13:26	01
DE-31D-10102011	L11100434-11	T2.101711.132932	10/17/11 13:29	01
DE-31E-10102011	L11100434-12	T2.101711.133248	10/17/11 13:32	01
DE-31F-10102011	L11100434-13	T2.101711.133605	10/17/11 13:36	01
DE-31G-10102011	L11100434-14	T2.101711.133923	10/17/11 13:39	01
DE-31G-10102011MS	L11100434-15	T2.101711.134239	10/17/11 13:42	01
DE-31G-10102011MSD	L11100434-16	T2.101711.135242	10/17/11 13:52	01
DE-32A-10102011	L11100434-17	T2.101711.135556	10/17/11 13:55	01
DE-32B-10102011	L11100434-18	T2.101711.135928	10/17/11 13:59	01

Report Name: BLANK_SUMMARY
 PDF File ID: 2184421
 Report generated 10/18/2011 14:05



METHOD BLANK SUMMARY

Login Number: L11100434 Work Group: WG379347
 Blank File ID: T2.101811.120146 Blank Sample ID: WG379303-02
 Prep Date: 10/18/11 07:54 Instrument ID: ICP-THERMO2
 Analyzed Date: 10/18/11 12:01 Method: 6010B
 Analyst: EDL

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG379303-03	T2.101811.120509	10/18/11 12:05	01
DE-29E-10112011	L11100434-37	T2.101811.120819	10/18/11 12:08	01
DE-29E-10112011MS	L11100434-38	T2.101811.121139	10/18/11 12:11	01
DE-29E-10112011MSD	L11100434-39	T2.101811.121454	10/18/11 12:14	01
DE-27A-10112011	L11100434-49	T2.101811.121809	10/18/11 12:18	01
DE-27B-10112011	L11100434-50	T2.101811.122116	10/18/11 12:21	01
DE-27C-10112011	L11100434-51	T2.101811.124049	10/18/11 12:40	01
DE-27D-10112011	L11100434-52	T2.101811.124404	10/18/11 12:44	01
DE-27E-10112011	L11100434-53	T2.101811.124727	10/18/11 12:47	01
DE-27F-10112011	L11100434-54	T2.101811.125052	10/18/11 12:50	01
DE-27G-10112011	L11100434-55	T2.101811.125411	10/18/11 12:54	01
DUP-SOIL-10112011-01	L11100434-56	T2.101811.125735	10/18/11 12:57	01
DUP-SOIL-10112011-02	L11100434-57	T2.101811.130052	10/18/11 13:00	01

Report Name: BLANK_SUMMARY
 PDF File ID: 2184421
 Report generated 10/18/2011 14:05



Microbac Laboratories Inc.
METHOD BLANK REPORT

Login Number: L11100434 Prep Date: 10/17/11 11:29 Sample ID: WG379213-02
Instrument ID: ICP-THERMO1 Run Date: 10/25/11 02:17 Prep Method: 3051A
File ID: T1.102511.021728 Analyst: PDM Method: 6010B
Workgroup (AAB#): WG379981 Matrix: Soil Units: mg/kg
Contract #: _____ Cal ID: ICP-TH-24-OCT-11

Analytes	MDL	RL	Concentration	Dilution	Qualifier
Arsenic, Total	2.50	5.00	2.50	1	U
Cadmium, Total	0.250	0.500	0.250	1	U

MDL Method Detection Limit
RL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name: BLANK
PDF ID: 2190582
01-NOV-2011 10:33



Microbac Laboratories Inc.
METHOD BLANK REPORT

Login Number: L11100434 Prep Date: 10/17/11 09:59 Sample ID: WG379198-02
Instrument ID: ICP-THERMO1 Run Date: 10/27/11 02:07 Prep Method: 3051A
File ID: T1.102711.020706 Analyst: PDM Method: 6010B
Workgroup (AAB#): WG379620 Matrix: Soil Units: mg/kg
Contract #: _____ Cal ID: ICP-TH-26-OCT-11

Analytes	MDL	RL	Concentration	Dilution	Qualifier
Arsenic, Total	2.50	5.00	2.50	1	U
Cadmium, Total	0.250	0.500	0.250	1	U

MDL Method Detection Limit
RL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name: BLANK
PDF ID: 2190582
01-NOV-2011 10:33



Microbac Laboratories Inc.
METHOD BLANK REPORT

Login Number: L11100434 Prep Date: 10/17/11 07:42 Sample ID: WG379148-02
Instrument ID: ICP-THERMO2 Run Date: 10/17/11 12:33 Prep Method: 3051A
File ID: T2.101711.123348 Analyst: EDL Method: 6010B
Workgroup (AAB#): WG379202 Matrix: Soil Units: mg/kg
Contract #: _____ Cal ID: ICP-TH-17-OCT-11

Analytes	MDL	RL	Concentration	Dilution	Qualifier
Arsenic, Total	2.50	5.00	2.50	1	U
Cadmium, Total	0.250	0.500	0.250	1	U

MDL Method Detection Limit
RL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name: BLANK
PDF ID: 2184422
18-OCT-2011 14:05



Microbac Laboratories Inc.
METHOD BLANK REPORT

Login Number: L11100434 Prep Date: 10/18/11 07:54 Sample ID: WG379303-02
Instrument ID: ICP-THERMO2 Run Date: 10/18/11 12:01 Prep Method: 3051A
File ID: T2.101811.120146 Analyst: EDL Method: 6010B
Workgroup (AAB#): WG379347 Matrix: Soil Units: mg/kg
Contract #: _____ Cal ID: ICP-TH-18-OCT-11

Analytes	MDL	RL	Concentration	Dilution	Qualifier
Arsenic, Total	2.50	5.00	2.50	1	U
Cadmium, Total	0.250	0.500	0.250	1	U

MDL Method Detection Limit
RL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name: BLANK
PDF ID: 2184422
18-OCT-2011 14:05



Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L11100434 Run Date: 10/25/2011 Sample ID: WG379213-03
Instrument ID: ICP-THERMO1 Run Time: 02:21 Prep Method: 3051A
File ID: T1.102511.022111 Analyst: PDM Method: 6010B
Workgroup (AAB#): WG379981 Matrix: Soil Units: mg/kg
QC Key: WATERLOO Lot#: STD47842 Cal ID: ICP-TH-24-OCT-11

Analytes	Expected	Found	% Rec	LCS Limits	Q
Arsenic, Total	10.0	10.2	102	80 - 120	
Cadmium, Total	1.25	1.29	103	80 - 120	

LCS - Modified 03/06/2008
PDF File ID: 2190583
Report generated: 11/01/2011 10:33



Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L11100434 Run Date: 10/27/2011 Sample ID: WG379198-03
Instrument ID: ICP-THERMO1 Run Time: 02:10 Prep Method: 3051A
File ID: T1.102711.021057 Analyst: PDM Method: 6010B
Workgroup (AAB#): WG379620 Matrix: Soil Units: mg/kg
QC Key: WATERLOO Lot#: STD47842 Cal ID: ICP-TH-26-OCT-11

Analytes	Expected	Found	% Rec	LCS Limits	Q
Arsenic, Total	10.0	9.85	98.5	80 - 120	
Cadmium, Total	1.25	1.28	102	80 - 120	

LCS - Modified 03/06/2008
PDF File ID: 2190583
Report generated: 11/01/2011 10:33



Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L11100434 Run Date: 10/17/2011 Sample ID: WG379148-03
Instrument ID: ICP-THERMO2 Run Time: 12:37 Prep Method: 3051A
File ID: T2.101711.123711 Analyst: EDL Method: 6010B
Workgroup (AAB#): WG379202 Matrix: Soil Units: mg/kg
QC Key: WATERLOO Lot#: STD47842 Cal ID: ICP-TH-17-OCT-11

Analytes	Expected	Found	% Rec	LCS Limits	Q
Arsenic, Total	10.0	9.67	96.7	80 - 120	
Cadmium, Total	1.25	1.23	98.2	80 - 120	

LCS - Modified 03/06/2008
PDF File ID: 2184423
Report generated: 10/18/2011 14:05



Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L11100434 Run Date: 10/18/2011 Sample ID: WG379303-03
Instrument ID: ICP-THERMO2 Run Time: 12:05 Prep Method: 3051A
File ID: T2.101811.120509 Analyst: EDL Method: 6010B
Workgroup (AAB#): WG379347 Matrix: Soil Units: mg/kg
QC Key: WATERLOO Lot#: STD47842 Cal ID: ICP-TH-18-OCT-11

Analytes	Expected	Found	% Rec	LCS Limits	Q
Arsenic, Total	10.0	9.54	95.4	80 - 120	
Cadmium, Total	1.25	1.23	98.6	80 - 120	

LCS - Modified 03/06/2008
PDF File ID: 2184423
Report generated: 10/18/2011 14:05



MS/MSD REPORT

Loginum: L11100434 Cal ID: ICP-THERMO1- 24-OCT-11 Worknum: WG379981
 Instrument ID: ICP-THERMO1 Contract #: _____ Prep Method: 3051A
 Parent ID: L11100434-20 File ID: T1.102511.022442 Dil: 1 Method: 6010B
 Sample ID: L11100434-21 MS File ID: T1.102511.022823 Dil: 1 Matrix: Soil
 Sample ID: L11100434-22 MSD File ID: T1.102511.023200 Dil: 1 Units: mg/kg
 Percent Solid: 89.7

Analyte	Parent	MS	MS	MS	MSD	MSD	MSD	%RPD	%Rec Limits	RPD Limit	Q
		Spiked	Found	%Rec	Spiked	Found	%Rec				
Arsenic, Total	11.7	7.91	18.1	80.5	7.91	17.3	70.5	4.48	80 - 120	20	*
Cadmium, Total	1.33	0.989	2.19	87.3	0.989	1.98	65.7	10.2	80 - 120	20	*

* FAILS %REC LIMIT

FAILS RPD LIMIT

MS/MSD REPORT

Loginum: L11100434 Cal ID: ICP-THERMO2- 17-OCT-11 Worknum: WG379202
 Instrument ID: ICP-THERMO2 Contract #: _____ Prep Method: 3051A
 Parent ID: L11100434-14 File ID: T2.101711.133923 Dil: 1 Method: 6010B
 Sample ID: L11100434-15 MS File ID: T2.101711.134239 Dil: 1 Matrix: Soil
 Sample ID: L11100434-16 MSD File ID: T2.101711.135242 Dil: 1 Units: mg/kg
 Percent Solid: 94.8

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Arsenic, Total	2.51	7.86	9.42	87.9	7.86	9.60	90.2	1.89	80 - 120	20	
Cadmium, Total	22.8	0.982	9.85	-1310	0.982	7.47	-1560	27.5	80 - 120	20	*#

* FAILS %REC LIMIT

FAILS RPD LIMIT

MS/MSD REPORT

Loginum: L11100434 Cal ID: ICP-THERMO2- 18-OCT-11 Worknum: WG379347
 Instrument ID: ICP-THERMO2 Contract #: _____ Prep Method: 3051A
 Parent ID: L11100434-37 File ID: T2.101811.120819 Dil: 1 Method: 6010B
 Sample ID: L11100434-38 MS File ID: T2.101811.121139 Dil: 1 Matrix: Soil
 Sample ID: L11100434-39 MSD File ID: T2.101811.121454 Dil: 1 Units: mg/kg
 Percent Solid: 94.6

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Arsenic, Total	U	7.53	8.97	119	7.53	9.10	121	1.38	80 - 120	20	*
Cadmium, Total	U	0.941	0.982	104	0.941	0.976	104	0.538	80 - 120	20	

* FAILS %REC LIMIT

FAILS RPD LIMIT



MATRIX SPIKE AND MATRIX SPIKE DUP (MS/MSD)

Loginnum: L11100434 Cal ID: ICP-THERMO1 - Worknum: WG379620
 Instrument ID: ICP-THERMO1 Contract #: _____ Method: 6010B
 Parent ID: WG379198-01 File ID: T1.102711.025218 Dil: 1 Matrix: SOLID
 Sample ID: WG379198-04 MS File ID: T1.102711.025558 Dil: 1 Units: mg/kg
 Sample ID: WG379198-05 MSD File ID: T1.102711.025934 Dil: 1 Percent Solid: 99.5

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Arsenic, Total	6.20	9.96	15.9	97.0	9.96	15.8	96.2	0.504	80 - 120	20	
Cadmium, Total	0.411	1.25	1.63	97.8	1.25	1.62	96.8	0.737	80 - 120	20	

* FAILS %REC LIMIT

FAILS RPD LIMIT

NOTE: This is an internal quality control sample.

Microbac Laboratories Inc.
Serial Dilution Report

Login: L11100434 Worknum: WG379981
Instrument: ICP-THERMO1 Method: 6010B
Serial Dil: WG379981-02 File ID: T1.102511.024641 Dil: 5 Units: mg/L
Sample: L11100434-28 File ID: T1.102511.023920 Dil: 1

Analyte	Sample	Qual	Serial Dil	Qual	% Diff	Q
Arsenic	ND	U	ND	U		
Cadmium	0.0149	X	ND	U		

U = Result is below MDL.

F = Result is greater than or equal to MDL and less than the RL.

X = Result is greater than or equal to RL and less than 50 times the MDL.

E = %D exceeds control limit of 10% and initial sample result is greater than or equal to 50 times the MDL.

SERIAL_DIL - Modified 09/22/2008

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Microbac Laboratories Inc.
Serial Dilution Report

Login: L11100434 Worknum: WG379620
Instrument: ICP-THERMO1 Method: 6010B
Serial Dil: WG379620-04 File ID: T1.102711.022206 Dil: 5 Units: mg/L
Sample: L11100434-19 File ID: T1.102711.021433 Dil: 1

Analyte	Sample	Qual	Serial Dil	Qual	% Diff	Q
Arsenic	0.313	X	0.308	F	1.31	
Cadmium	0.0426	X	0.0451	F	5.94	

U = Result is below MDL.

F = Result is greater than or equal to MDL and less than the RL.

X = Result is greater than or equal to RL and less than 50 times the MDL.

E = %D exceeds control limit of 10% and initial sample result is greater than or equal to 50 times the MDL.

SERIAL_DIL - Modified 09/22/2008

PDF File ID: 2190577

11/01/2011 10:31



Microbac Laboratories Inc.
Serial Dilution Report

Login: L11100434 Worknum: WG379202
Instrument: ICP-THERMO2 Method: 6010B
Serial Dil: WG379202-02 File ID: T2.101711.125935 Dil: 5 Units: mg/L
Sample: L11100434-05 File ID: T2.101711.125320 Dil: 1

Analyte	Sample	Qual	Serial Dil	Qual	% Diff	Q
Arsenic	0.956	X	1.07	X	12.10	
Cadmium	0.00894	F	ND	U		

U = Result is below MDL.

F = Result is greater than or equal to MDL and less than the RL.

X = Result is greater than or equal to RL and less than 50 times the MDL.

E = %D exceeds control limit of 10% and initial sample result is greater than or equal to 50 times the MDL.

SERIAL_DIL - Modified 09/22/2008

PDF File ID: 2184415

10/18/2011 14:05



Microbac Laboratories Inc.
Serial Dilution Report

Login: L11100434 Worknum: WG379347
Instrument: ICP-THERMO2 Method: 6010B
Serial Dil: WG379347-02 File ID: T2.101811.122731 Dil: 5 Units: mg/L
Sample: L11100434-50 File ID: T2.101811.122116 Dil: 1

Analyte	Sample	Qual	Serial Dil	Qual	% Diff	Q
Arsenic	0.210	X	ND	U		
Cadmium	0.0135	X	ND	U		

U = Result is below MDL.

F = Result is greater than or equal to MDL and less than the RL.

X = Result is greater than or equal to RL and less than 50 times the MDL.

E = %D exceeds control limit of 10% and initial sample result is greater than or equal to 50 times the MDL.

SERIAL_DIL - Modified 09/22/2008

PDF File ID: 2184415

10/18/2011 14:05



Microbac Laboratories Inc.
POST SPIKE REPORT

Sample Login ID: L11100434

Worknum: WG379981

Instrument ID: ICP-THERMO1

Method: 6010B

Post Spike ID: WG379981-01

File ID: T1.102511.024302

Dil: 1

Units: mg/L

Sample ID: L11100434-28

File ID: T1.102511.023920

Dil: 1

Matrix: Soil

Analyte	Post Spike Result	C	Sample Result	C	Spike Added(SA)	% R	Control Limit %R	Q
ARSENIC	0.242		0	U	.2	120.9	75 - 125	
CADMIUM	0.0395		0.0149		.025	104.4	75 - 125	

N = % Recovery exceeds control limits

F = Result is between MDL and RL

U = Sample result is below MDL. A value of zero is used in the calculation

POST_SPIKE - Modified 03/06/2008
PDF File ID: 2190578
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Microbac Laboratories Inc.
POST SPIKE REPORT

Sample Login ID: L11100434 Worknum: WG379620
 Instrument ID: ICP-THERMO1 Method: 6010B
 Post Spike ID: WG379620-03 File ID: T1.102711.021821 Dil: 1 Units: mg/L
 Sample ID: L11100434-19 File ID: T1.102711.021433 Dil: 1 Matrix: Soil

Analyte	Post Spike Result	C	Sample Result	C	Spike Added(SA)	% R	Control Limit %R	Q
ARSENIC	0.486		0.313		.2	102.2	75 - 125	
CADMIUM	0.0652		0.0426		.025	107.7	75 - 125	

N = % Recovery exceeds control limits
 F = Result is between MDL and RL
 U = Sample result is below MDL. A value of zero is used in the calculation

POST_SPIKE - Modified 03/06/2008
 PDF File ID: 2190578
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Microbac Laboratories Inc.
POST SPIKE REPORT

Sample Login ID: L11100434 Worknum: WG379202
 Instrument ID: ICP-THERMO2 Method: 6010B
 Post Spike ID: WG379202-01 File ID: T2.101711.125629 Dil: 1 Units: mg/L
 Sample ID: L11100434-05 File ID: T2.101711.125320 Dil: 1 Matrix: Soil

Analyte	Post Spike Result	C	Sample Result	C	Spike Added(SA)	% R	Control Limit %R	Q
ARSENIC	1.05		0.956		.2	95.2	75 - 125	
CADMIUM	0.0309		0.00894	F	.025	91.3	75 - 125	

N = % Recovery exceeds control limits
 F = Result is between MDL and RL
 U = Sample result is below MDL. A value of zero is used in the calculation



Microbac Laboratories Inc.
POST SPIKE REPORT

Sample Login ID: L11100434 Worknum: WG379347
 Instrument ID: ICP-THERMO2 Method: 6010B
 Post Spike ID: WG379347-01 File ID: T2.101811.122426 Dil: 1 Units: mg/L
 Sample ID: L11100434-50 File ID: T2.101811.122116 Dil: 1 Matrix: Soil

Analyte	Post Spike Result	C	Sample Result	C	Spike Added(SA)	% R	Control Limit %R	Q
ARSENIC	0.375		0.210		.2	92.8	75 - 125	
CADMIUM	0.0353		0.0135		.025	92.5	75 - 125	

N = % Recovery exceeds control limits
 F = Result is between MDL and RL
 U = Sample result is below MDL. A value of zero is used in the calculation

POST_SPIKE - Modified 03/06/2008
 PDF File ID: 2184416
 Report generated: 10/18/2011 14:05



Microbac Laboratories Inc.
Initial Calibration Summary

Login: L11100434 Workgroup (AAB#): WG379981
 Analytical Method: 6010B Instrument ID: ICP-THERMO1
 ICAL Worknum: WG379938 Initial Calibration Date: 24-OCT-2011 08:53

	WG379938-01		WG379938-02		WG379938-03		WG379938-04		WG379938-05		R	Q
	Conc	INT	Conc	INT	Conc	INT	Conc	INT	Conc	INT		
ARSENIC	0	-0.000140	NA	NA	.008	0.000190	.4	0.0111	.8	0.0226	.999208	
CADMIUM	0	0.000810	.0005	0.00115	.001	0.00158	.05	0.0413	.1	0.0816	.999963	

INT = Instrument intensity
 R = Coefficient of correlation
 Q = Data Qualifier
 * = Out of Compliance; R < 0.995



Microbac Laboratories Inc.
Initial Calibration Summary

Login: L11100434 Workgroup (AAB#): WG379981
 Analytical Method: 6010B Instrument ID: ICP-THERMO1
 ICAL Worknum: WG380705 Initial Calibration Date: 31-OCT-2011 09:17

	WG380705-01		WG380705-02		WG380705-03		WG380705-04		WG380705-05		R	Q
	Conc	INT	Conc	INT	Conc	INT	Conc	INT	Conc	INT		
ARSENIC	0	-0.000110	NA	NA	.008	-0.0000100	.4	0.00994	.8	0.0205	.999036	
CADMIUM	0	0.000730	.0005	0.00131	.001	0.00141	.05	0.0356	.1	0.0703	.999209	

INT = Instrument intensity
 R = Coefficient of correlation
 Q = Data Qualifier
 * = Out of Compliance; R < 0.995



Microbac Laboratories Inc.
Initial Calibration Summary

Login: L11100434 Workgroup (AAB#): WG379620
 Analytical Method: 6010B Instrument ID: ICP-THERMO1
 ICAL Worknum: WG380270 Initial Calibration Date: 26-OCT-2011 09:01

	WG380270-01		WG380270-02		WG380270-03		WG380270-04		WG380270-05		R	Q
	Conc	INT	Conc	INT	Conc	INT	Conc	INT	Conc	INT		
ARSENIC	0	-0.000210	NA	NA	.008	0.0000900	.4	0.00974	.8	0.0198	.999282	
CADMIUM	0	0.000790	.0005	0.00106	.001	0.00150	.05	0.0348	.1	0.0700	.999905	

INT = Instrument intensity
 R = Coefficient of correlation
 Q = Data Qualifier
 * = Out of Compliance; R < 0.995



Microbac Laboratories Inc.
Initial Calibration Summary

Login: L11100434 Workgroup (AAB#): WG379202
 Analytical Method: 6010B Instrument ID: ICP-THERMO2
 ICAL Worknum: WG379212 Initial Calibration Date: 17-OCT-2011 09:49

	WG379212-01		WG379212-02		WG379212-03		WG379212-04		WG379212-05		R	Q
	Conc	INT	Conc	INT	Conc	INT	Conc	INT	Conc	INT		
ARSENIC	0	-0.000260	NA	NA	.008	0.0000600	.4	0.0149	.8	0.0302	.999979	
CADMIUM	0	0.000170	.0005	0.000570	.001	0.000900	.05	0.0397	.1	0.0795	.999973	

INT = Instrument intensity
 R = Coefficient of correlation
 Q = Data Qualifier
 * = Out of Compliance; R < 0.995



Microbac Laboratories Inc.
Initial Calibration Summary

Login: L11100434 Workgroup (AAB#): WG379347
 Analytical Method: 6010B Instrument ID: ICP-THERMO2
 ICAL Worknum: WG379358 Initial Calibration Date: 18-OCT-2011 09:56

	WG379358-01		WG379358-02		WG379358-03		WG379358-04		WG379358-05		R	Q
	Conc	INT	Conc	INT	Conc	INT	Conc	INT	Conc	INT		
ARSENIC	0	-0.000220	NA	NA	.008	0.0000400	.4	0.0135	.8	0.0275	.999971	
CADMIUM	0	0.000100	.0005	0.000510	.001	0.000870	.05	0.0360	.1	0.0724	.999941	

INT = Instrument intensity
 R = Coefficient of correlation
 Q = Data Qualifier
 * = Out of Compliance; R < 0.995



Microbac Laboratories Inc.
INITIAL CALIBRATION BLANK (ICB)

Login Number: L11100434 Run Date: 10/24/2011 Sample ID: WG379938-07
Instrument ID: ICP-THERMO1 Run Time: 09:00 Method: 6010B
File ID: T1.102411.090038 Analyst: PDM Units: mg/L
Workgroup (AAB#): WG379981 Cal ID: ICP-THERM - 24-OCT-11
Matrix: SOIL

Analytes	MDL	RDL	Concentration	Qualifier
ARSENIC	.05	.1	.05	U
CADMIUM	.005	.01	.005	U

ICB - Modified 07/14/2009
PDF File ID: 2190590
Report generated 11/01/2011 10:34



Microbac Laboratories Inc.
INITIAL CALIBRATION BLANK (ICB)

Login Number: L11100434 Run Date: 10/31/2011 Sample ID: WG380705-07
Instrument ID: ICP-THERMO1 Run Time: 09:25 Method: 6010B
File ID: T1.103111.092507 Analyst: PDM Units: mg/L
Workgroup (AAB#): WG379981 Cal ID: ICP-THERM - 31-OCT-11
Matrix: SOIL

Analytes	MDL	RDL	Concentration	Qualifier
ARSENIC	.05	.1	.05	U
CADMIUM	.005	.01	.005	U

ICB - Modified 07/14/2009
PDF File ID: 2190590
Report generated 11/01/2011 10:34



Microbac Laboratories Inc.
INITIAL CALIBRATION BLANK (ICB)

Login Number: L11100434 Run Date: 10/26/2011 Sample ID: WG380270-07
Instrument ID: ICP-THERMO1 Run Time: 09:09 Method: 6010B
File ID: T1.102611.090917 Analyst: PDM Units: mg/L
Workgroup (AAB#): WG379620 Cal ID: ICP-THERM - 26-OCT-11
Matrix: SOIL

Analytes	MDL	RDL	Concentration	Qualifier
ARSENIC	.05	.1	.05	U
CADMIUM	.005	.01	.005	U

ICB - Modified 07/14/2009
PDF File ID: 2190590
Report generated 11/01/2011 10:34



Microbac Laboratories Inc.
INITIAL CALIBRATION BLANK (ICB)

Login Number: L11100434 Run Date: 10/17/2011 Sample ID: WG379212-07
Instrument ID: ICP-THERMO2 Run Time: 09:55 Method: 6010B
File ID: T2.101711.095530 Analyst: EDL Units: mg/L
Workgroup (AAB#): WG379202 Cal ID: ICP-THERM - 17-OCT-11
Matrix: SOIL

Analytes	MDL	RDL	Concentration	Qualifier
ARSENIC	.05	.1	.05	U
CADMIUM	.005	.01	.005	U

ICB - Modified 07/14/2009
PDF File ID: 2184431
Report generated 10/18/2011 14:06



Microbac Laboratories Inc.
INITIAL CALIBRATION BLANK (ICB)

Login Number: L11100434 Run Date: 10/18/2011 Sample ID: WG379358-13
Instrument ID: ICP-THERMO2 Run Time: 10:27 Method: 6010B
File ID: T2.101811.102704 Analyst: EDL Units: mg/L
Workgroup (AAB#): WG379347 Cal ID: ICP-THERM - 18-OCT-11
Matrix: SOIL

Analytes	MDL	RDL	Concentration	Qualifier
ARSENIC	.05	.1	.05	U
CADMIUM	.005	.01	.005	U

ICB - Modified 07/14/2009
PDF File ID: 2184431
Report generated 10/18/2011 14:06



Microbac Laboratories Inc.
CONTINUING CALIBRATION BLANK (CCB)

Login Number: L11100434 Run Date: 10/24/2011 Sample ID: WG379938-11
Instrument ID: ICP-THERMO1 Run Time: 09:15 Method: 6010B
File ID: T1.102411.091539 Analyst: PDM Units: mg/L
Workgroup (AAB#): WG379981 Cal ID: ICP-TH - 24-OCT-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 2190597
Report generated 11/01/2011 10:42



Microbac Laboratories Inc.
CONTINUING CALIBRATION BLANK (CCB)

Login Number: L11100434 Run Date: 10/24/2011 Sample ID: WG379938-47
Instrument ID: ICP-THERMO1 Run Time: 21:33 Method: 6010B
File ID: T1.102411.213336 Analyst: PDM Units: mg/L
Workgroup (AAB#): WG379981 Cal ID: ICP-TH - 24-OCT-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 2190597
Report generated 11/01/2011 10:42



Microbac Laboratories Inc.
CONTINUING CALIBRATION BLANK (CCB)

Login Number: L11100434 Run Date: 10/24/2011 Sample ID: WG379938-77
Instrument ID: ICP-THERMO1 Run Time: 21:56 Method: 6010B
File ID: T1.102411.215615 Analyst: PDM Units: mg/L
Workgroup (AAB#): WG379981 Cal ID: ICP-TH - 24-OCT-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 2190597
Report generated 11/01/2011 10:42



Microbac Laboratories Inc.
CONTINUING CALIBRATION BLANK (CCB)

Login Number: L11100434 Run Date: 10/25/2011 Sample ID: WG379938-62
Instrument ID: ICP-THERMO1 Run Time: 01:58 Method: 6010B
File ID: T1.102511.015858 Analyst: PDM Units: mg/L
Workgroup (AAB#): WG379981 Cal ID: ICP-TH - 24-OCT-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 2190597
Report generated 11/01/2011 10:42



Microbac Laboratories Inc.
CONTINUING CALIBRATION BLANK (CCB)

Login Number: L11100434 Run Date: 10/25/2011 Sample ID: WG379938-66
Instrument ID: ICP-THERMO1 Run Time: 02:13 Method: 6010B
File ID: T1.102511.021344 Analyst: PDM Units: mg/L
Workgroup (AAB#): WG379981 Cal ID: ICP-TH - 24-OCT-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

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Login Number: L11100434 Run Date: 10/25/2011 Sample ID: WG379938-68
Instrument ID: ICP-THERMO1 Run Time: 02:57 Method: 6010B
File ID: T1.102511.025741 Analyst: PDM Units: mg/L
Workgroup (AAB#): WG379981 Cal ID: ICP-TH - 24-OCT-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

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Login Number: L11100434 Run Date: 10/25/2011 Sample ID: WG379938-70
Instrument ID: ICP-THERMO1 Run Time: 03:41 Method: 6010B
File ID: T1.102511.034151 Analyst: PDM Units: mg/L
Workgroup (AAB#): WG379981 Cal ID: ICP-TH - 24-OCT-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

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Login Number: L11100434 Run Date: 10/25/2011 Sample ID: WG379938-72
Instrument ID: ICP-THERMO1 Run Time: 04:15 Method: 6010B
File ID: T1.102511.041517 Analyst: PDM Units: mg/L
Workgroup (AAB#): WG379981 Cal ID: ICP-TH - 24-OCT-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

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Login Number: L11100434 Run Date: 10/25/2011 Sample ID: WG379938-76
Instrument ID: ICP-THERMO1 Run Time: 04:30 Method: 6010B
File ID: T1.102511.043002 Analyst: PDM Units: mg/L
Workgroup (AAB#): WG379981 Cal ID: ICP-TH - 24-OCT-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

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Login Number: L11100434 Run Date: 10/31/2011 Sample ID: WG380705-11
Instrument ID: ICP-THERMO1 Run Time: 09:40 Method: 6010B
File ID: T1.103111.094055 Analyst: PDM Units: mg/L
Workgroup (AAB#): WG379981 Cal ID: ICP-TH - 31-OCT-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

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Login Number: L11100434 Run Date: 10/31/2011 Sample ID: WG380705-13
Instrument ID: ICP-THERMO1 Run Time: 10:26 Method: 6010B
File ID: T1.103111.102633 Analyst: PDM Units: mg/L
Workgroup (AAB#): WG379981 Cal ID: ICP-TH - 31-OCT-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

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Login Number: L11100434 Run Date: 10/31/2011 Sample ID: WG380705-15
Instrument ID: ICP-THERMO1 Run Time: 11:00 Method: 6010B
File ID: T1.103111.110056 Analyst: PDM Units: mg/L
Workgroup (AAB#): WG379981 Cal ID: ICP-TH - 31-OCT-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

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Login Number: L11100434 Run Date: 10/31/2011 Sample ID: WG380705-19
Instrument ID: ICP-THERMO1 Run Time: 11:16 Method: 6010B
File ID: T1.103111.111626 Analyst: PDM Units: mg/L
Workgroup (AAB#): WG379981 Cal ID: ICP-TH - 31-OCT-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

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Login Number: L11100434 Run Date: 11/01/2011 Sample ID: WG380705-61
 Instrument ID: ICP-THERMO1 Run Time: 01:20 Method: 6010B
 File ID: T1.110111.012023 Analyst: PDM Units: mg/L
 Workgroup (AAB#): WG379981 Cal ID: ICP-TH - 31-OCT-11
 Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
 F = Result is between MDL and RL.
 * = Result is above RL.

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Login Number: L11100434 Run Date: 11/01/2011 Sample ID: WG380705-64
Instrument ID: ICP-THERMO1 Run Time: 02:06 Method: 6010B
File ID: T1.110111.020636 Analyst: PDM Units: mg/L
Workgroup (AAB#): WG379981 Cal ID: ICP-TH - 31-OCT-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

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Login Number: L11100434 Run Date: 11/01/2011 Sample ID: WG380705-68
Instrument ID: ICP-THERMO1 Run Time: 02:21 Method: 6010B
File ID: T1.110111.022159 Analyst: PDM Units: mg/L
Workgroup (AAB#): WG379981 Cal ID: ICP-TH - 31-OCT-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

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Login Number: L11100434 Run Date: 11/01/2011 Sample ID: WG380705-74
Instrument ID: ICP-THERMO1 Run Time: 04:27 Method: 6010B
File ID: T1.110111.042717 Analyst: PDM Units: mg/L
Workgroup (AAB#): WG379981 Cal ID: ICP-TH - 31-OCT-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

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Login Number: L11100434 Run Date: 11/01/2011 Sample ID: WG380705-78
Instrument ID: ICP-THERMO1 Run Time: 04:42 Method: 6010B
File ID: T1.110111.044247 Analyst: PDM Units: mg/L
Workgroup (AAB#): WG379981 Cal ID: ICP-TH - 31-OCT-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

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Login Number: L11100434 Run Date: 10/26/2011 Sample ID: WG380270-11
Instrument ID: ICP-THERMO1 Run Time: 09:24 Method: 6010B
File ID: T1.102611.092432 Analyst: PDM Units: mg/L
Workgroup (AAB#): WG379620 Cal ID: ICP-TH - 26-OCT-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

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Login Number: L11100434 Run Date: 10/26/2011 Sample ID: WG380270-17
Instrument ID: ICP-THERMO1 Run Time: 11:10 Method: 6010B
File ID: T1.102611.111049 Analyst: PDM Units: mg/L
Workgroup (AAB#): WG379620 Cal ID: ICP-TH - 26-OCT-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

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Login Number: L11100434 Run Date: 10/26/2011 Sample ID: WG380270-20
Instrument ID: ICP-THERMO1 Run Time: 11:37 Method: 6010B
File ID: T1.102611.113734 Analyst: PDM Units: mg/L
Workgroup (AAB#): WG379620 Cal ID: ICP-TH - 26-OCT-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

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Login Number: L11100434 Run Date: 10/27/2011 Sample ID: WG380270-62
Instrument ID: ICP-THERMO1 Run Time: 01:47 Method: 6010B
File ID: T1.102711.014752 Analyst: PDM Units: mg/L
Workgroup (AAB#): WG379620 Cal ID: ICP-TH - 26-OCT-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

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Login Number: L11100434 Run Date: 10/27/2011 Sample ID: WG380270-66
Instrument ID: ICP-THERMO1 Run Time: 02:03 Method: 6010B
File ID: T1.102711.020312 Analyst: PDM Units: mg/L
Workgroup (AAB#): WG379620 Cal ID: ICP-TH - 26-OCT-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

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Login Number: L11100434 Run Date: 10/27/2011 Sample ID: WG380270-68
Instrument ID: ICP-THERMO1 Run Time: 02:48 Method: 6010B
File ID: T1.102711.024825 Analyst: PDM Units: mg/L
Workgroup (AAB#): WG379620 Cal ID: ICP-TH - 26-OCT-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

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Login Number: L11100434 Run Date: 10/27/2011 Sample ID: WG380270-70
Instrument ID: ICP-THERMO1 Run Time: 03:06 Method: 6010B
File ID: T1.102711.030649 Analyst: PDM Units: mg/L
Workgroup (AAB#): WG379620 Cal ID: ICP-TH - 26-OCT-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

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Login Number: L11100434 Run Date: 10/27/2011 Sample ID: WG380270-74
Instrument ID: ICP-THERMO1 Run Time: 03:22 Method: 6010B
File ID: T1.102711.032211 Analyst: PDM Units: mg/L
Workgroup (AAB#): WG379620 Cal ID: ICP-TH - 26-OCT-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

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Login Number: L11100434 Run Date: 10/17/2011 Sample ID: WG379212-11
Instrument ID: ICP-THERMO2 Run Time: 10:08 Method: 6010B
File ID: T2.101711.100830 Analyst: EDL Units: mg/L
Workgroup (AAB#): WG379202 Cal ID: ICP-TH - 17-OCT-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

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Login Number: L11100434 Run Date: 10/17/2011 Sample ID: WG379212-13
Instrument ID: ICP-THERMO2 Run Time: 10:18 Method: 6010B
File ID: T2.101711.101839 Analyst: EDL Units: mg/L
Workgroup (AAB#): WG379202 Cal ID: ICP-TH - 17-OCT-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

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Login Number: L11100434 Run Date: 10/17/2011 Sample ID: WG379212-16
Instrument ID: ICP-THERMO2 Run Time: 10:39 Method: 6010B
File ID: T2.101711.103913 Analyst: EDL Units: mg/L
Workgroup (AAB#): WG379202 Cal ID: ICP-TH - 17-OCT-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

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Login Number: L11100434 Run Date: 10/17/2011 Sample ID: WG379212-22
Instrument ID: ICP-THERMO2 Run Time: 12:30 Method: 6010B
File ID: T2.101711.123019 Analyst: EDL Units: mg/L
Workgroup (AAB#): WG379202 Cal ID: ICP-TH - 17-OCT-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

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Login Number: L11100434 Run Date: 10/17/2011 Sample ID: WG379212-24
Instrument ID: ICP-THERMO2 Run Time: 13:09 Method: 6010B
File ID: T2.101711.130925 Analyst: EDL Units: mg/L
Workgroup (AAB#): WG379202 Cal ID: ICP-TH - 17-OCT-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

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CONTINUING CALIBRATION BLANK (CCB)

Login Number: L11100434 Run Date: 10/17/2011 Sample ID: WG379212-26
Instrument ID: ICP-THERMO2 Run Time: 13:49 Method: 6010B
File ID: T2.101711.134912 Analyst: EDL Units: mg/L
Workgroup (AAB#): WG379202 Cal ID: ICP-TH - 17-OCT-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

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CONTINUING CALIBRATION BLANK (CCB)

Login Number: L11100434 Run Date: 10/17/2011 Sample ID: WG379212-30
Instrument ID: ICP-THERMO2 Run Time: 14:25 Method: 6010B
File ID: T2.101711.142521 Analyst: EDL Units: mg/L
Workgroup (AAB#): WG379202 Cal ID: ICP-TH - 17-OCT-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

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CONTINUING CALIBRATION BLANK (CCB)

Login Number: L11100434 Run Date: 10/18/2011 Sample ID: WG379358-17
Instrument ID: ICP-THERMO2 Run Time: 10:40 Method: 6010B
File ID: T2.101811.104006 Analyst: EDL Units: mg/L
Workgroup (AAB#): WG379347 Cal ID: ICP-TH - 18-OCT-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

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CONTINUING CALIBRATION BLANK (CCB)

Login Number: L11100434 Run Date: 10/18/2011 Sample ID: WG379358-21
Instrument ID: ICP-THERMO2 Run Time: 11:58 Method: 6010B
File ID: T2.101811.115817 Analyst: EDL Units: mg/L
Workgroup (AAB#): WG379347 Cal ID: ICP-TH - 18-OCT-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

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CONTINUING CALIBRATION BLANK (CCB)

Login Number: L11100434 Run Date: 10/18/2011 Sample ID: WG379358-23
Instrument ID: ICP-THERMO2 Run Time: 12:37 Method: 6010B
File ID: T2.101811.123717 Analyst: EDL Units: mg/L
Workgroup (AAB#): WG379347 Cal ID: ICP-TH - 18-OCT-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
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Microbac Laboratories Inc.
CONTINUING CALIBRATION BLANK (CCB)

Login Number: L11100434 Run Date: 10/18/2011 Sample ID: WG379358-25
Instrument ID: ICP-THERMO2 Run Time: 13:16 Method: 6010B
File ID: T2.101811.131653 Analyst: EDL Units: mg/L
Workgroup (AAB#): WG379347 Cal ID: ICP-TH - 18-OCT-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 2184436
Report generated 10/18/2011 14:07



Microbac Laboratories Inc.
CONTINUING CALIBRATION BLANK (CCB)

Login Number: L11100434 Run Date: 10/18/2011 Sample ID: WG379358-29
Instrument ID: ICP-THERMO2 Run Time: 13:52 Method: 6010B
File ID: T2.101811.135253 Analyst: EDL Units: mg/L
Workgroup (AAB#): WG379347 Cal ID: ICP-TH - 18-OCT-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 2184436
Report generated 10/18/2011 14:07



Microbac Laboratories Inc.
INITIAL CALIBRATION VERIFICATION (ICV)
(Alternate Source)

Login Number: L11100434 Run Date: 10/24/2011 Sample ID: WG379938-06
Instrument ID: ICP-THERMO1 Run Time: 08:57 Method: 6010B
File ID: T1.102411.085707 Analyst: PDM Units: mg/L
Workgroup (AAB#): WG379981 Cal ID: ICP-TH - 24-OCT-11
QC Key: WATERLOO

Analyte	Expected	Found	%REC	LIMITS	Q
Arsenic	.4	0.419	105	90 - 110	
Cadmium	.05	0.0525	105	90 - 110	

* Exceeds LIMITS Limit

ICV - Modified 03/06/2008
PDF File ID: 2190588
Report generated 11/01/2011 10:34



Microbac Laboratories Inc.
INITIAL CALIBRATION VERIFICATION (ICV)
(Alternate Source)

Login Number: L11100434 Run Date: 10/31/2011 Sample ID: WG380705-06
Instrument ID: ICP-THERMO1 Run Time: 09:21 Method: 6010B
File ID: T1.103111.092125 Analyst: PDM Units: mg/L
Workgroup (AAB#): WG379981 Cal ID: ICP-TH - 31-OCT-11
QC Key: WATERLOO

Analyte	Expected	Found	%REC	LIMITS	Q
Arsenic	.4	0.417	104	90 - 110	
Cadmium	.05	0.0526	105	90 - 110	

* Exceeds LIMITS Limit

ICV - Modified 03/06/2008
PDF File ID: 2190588
Report generated 11/01/2011 10:34



Microbac Laboratories Inc.
INITIAL CALIBRATION VERIFICATION (ICV)
(Alternate Source)

Login Number: L11100434 Run Date: 10/26/2011 Sample ID: WG380270-06
Instrument ID: ICP-THERMO1 Run Time: 09:05 Method: 6010B
File ID: T1.102611.090540 Analyst: PDM Units: mg/L
Workgroup (AAB#): WG379620 Cal ID: ICP-TH - 26-OCT-11
QC Key: WATERLOO

Analyte	Expected	Found	%REC	LIMITS	Q
Arsenic	.4	0.414	103	90 - 110	
Cadmium	.05	0.0523	105	90 - 110	

* Exceeds LIMITS Limit

ICV - Modified 03/06/2008
PDF File ID: 2190588
Report generated 11/01/2011 10:34



Microbac Laboratories Inc.
INITIAL CALIBRATION VERIFICATION (ICV)
(Alternate Source)

Login Number: L11100434 Run Date: 10/17/2011 Sample ID: WG379212-06
Instrument ID: ICP-THERMO2 Run Time: 09:52 Method: 6010B
File ID: T2.101711.095221 Analyst: EDL Units: mg/L
Workgroup (AAB#): WG379202 Cal ID: ICP-TH - 17-OCT-11
QC Key: WATERLOO

Analyte	Expected	Found	%REC	LIMITS	Q
Arsenic	.4	0.394	98.6	90 - 110	
Cadmium	.05	0.0502	100	90 - 110	

* Exceeds LIMITS Limit



Microbac Laboratories Inc.
 INITIAL CALIBRATION VERIFICATION (ICV)
 (Alternate Source)

Login Number: L11100434 Run Date: 10/18/2011 Sample ID: WG379358-12
 Instrument ID: ICP-THERMO2 Run Time: 10:23 Method: 6010B
 File ID: T2.101811.102354 Analyst: EDL Units: mg/L
 Workgroup (AAB#): WG379347 Cal ID: ICP-TH - 18-OCT-11
 QC Key: WATERLOO

Analyte	Expected	Found	%REC	LIMITS	Q
Arsenic	.4	0.400	100	90 - 110	
Cadmium	.05	0.0509	102	90 - 110	

* Exceeds LIMITS Limit



Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11100434 Run Date: 10/24/2011 Sample ID: WG379938-10
 Instrument ID: ICP-THERMO1 Run Time: 09:12 Method: 6010B
 File ID: T1.102411.091207 Analyst: PDM QC Key: WATERLOO
 Workgroup (AAB#): WG379981 Cal ID: ICP-TH - 24-OCT-11
 Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.410	mg/L	103	90 - 110	
Cadmium	0.0500	0.0508	mg/L	102	90 - 110	

* Exceeds LIMITS Criteria

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 PDF File ID: 2190594
 Report generated 11/01/2011 10:40



Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11100434 Run Date: 10/24/2011 Sample ID: WG379938-46
 Instrument ID: ICP-THERMO1 Run Time: 21:30 Method: 6010B
 File ID: T1.102411.213004 Analyst: PDM QC Key: WATERLOO
 Workgroup (AAB#): WG379981 Cal ID: ICP-TH - 24-OCT-11
 Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.425	mg/L	106	90 - 110	
Cadmium	0.0500	0.0524	mg/L	105	90 - 110	

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
 PDF File ID: 2190594
 Report generated 11/01/2011 10:40



Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11100434 Run Date: 10/24/2011 Sample ID: WG379938-49
 Instrument ID: ICP-THERMO1 Run Time: 21:52 Method: 6010B
 File ID: T1.102411.215243 Analyst: PDM QC Key: WATERLOO
 Workgroup (AAB#): WG379981 Cal ID: ICP-TH - 24-OCT-11
 Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.425	mg/L	106	90 - 110	
Cadmium	0.0500	0.0529	mg/L	106	90 - 110	

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
 PDF File ID: 2190594
 Report generated 11/01/2011 10:40



Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11100434 Run Date: 10/25/2011 Sample ID: WG379938-61
 Instrument ID: ICP-THERMO1 Run Time: 01:55 Method: 6010B
 File ID: T1.102511.015529 Analyst: PDM QC Key: WATERLOO
 Workgroup (AAB#): WG379981 Cal ID: ICP-TH - 24-OCT-11
 Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.439	mg/L	110	90 - 110	
Cadmium	0.0500	0.0539	mg/L	108	90 - 110	

* Exceeds LIMITS Criteria

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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11100434 Run Date: 10/25/2011 Sample ID: WG379938-65
 Instrument ID: ICP-THERMO1 Run Time: 02:10 Method: 6010B
 File ID: T1.102511.021015 Analyst: PDM QC Key: WATERLOO
 Workgroup (AAB#): WG379981 Cal ID: ICP-TH - 24-OCT-11
 Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.435	mg/L	109	90 - 110	
Cadmium	0.0500	0.0539	mg/L	108	90 - 110	

* Exceeds LIMITS Criteria

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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11100434 Run Date: 10/25/2011 Sample ID: WG379938-67
 Instrument ID: ICP-THERMO1 Run Time: 02:54 Method: 6010B
 File ID: T1.102511.025412 Analyst: PDM QC Key: WATERLOO
 Workgroup (AAB#): WG379981 Cal ID: ICP-TH - 24-OCT-11
 Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.439	mg/L	110	90 - 110	
Cadmium	0.0500	0.0537	mg/L	107	90 - 110	

* Exceeds LIMITS Criteria

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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11100434 Run Date: 10/25/2011 Sample ID: WG379938-69
 Instrument ID: ICP-THERMO1 Run Time: 03:38 Method: 6010B
 File ID: T1.102511.033821 Analyst: PDM QC Key: WATERLOO
 Workgroup (AAB#): WG379981 Cal ID: ICP-TH - 24-OCT-11
 Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.443	mg/L	111	90 - 110	*
Cadmium	0.0500	0.0539	mg/L	108	90 - 110	

* Exceeds LIMITS Criteria

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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11100434 Run Date: 10/25/2011 Sample ID: WG379938-71
Instrument ID: ICP-THERMO1 Run Time: 04:11 Method: 6010B
File ID: T1.102511.041148 Analyst: PDM QC Key: WATERLOO
Workgroup (AAB#): WG379981 Cal ID: ICP-TH - 24-OCT-11
Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.431	mg/L	108	90 - 110	
Cadmium	0.0500	0.0539	mg/L	108	90 - 110	

* Exceeds LIMITS Criteria

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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11100434 Run Date: 10/25/2011 Sample ID: WG379938-75
 Instrument ID: ICP-THERMO1 Run Time: 04:26 Method: 6010B
 File ID: T1.102511.042632 Analyst: PDM QC Key: WATERLOO
 Workgroup (AAB#): WG379981 Cal ID: ICP-TH - 24-OCT-11
 Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.437	mg/L	109	90 - 110	
Cadmium	0.0500	0.0540	mg/L	108	90 - 110	

* Exceeds LIMITS Criteria

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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11100434 Run Date: 10/31/2011 Sample ID: WG380705-10
 Instrument ID: ICP-THERMO1 Run Time: 09:37 Method: 6010B
 File ID: T1.103111.093715 Analyst: PDM QC Key: WATERLOO
 Workgroup (AAB#): WG379981 Cal ID: ICP-TH - 31-OCT-11
 Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.405	mg/L	101	90 - 110	
Cadmium	0.0500	0.0504	mg/L	101	90 - 110	

* Exceeds LIMITS Criteria

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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11100434 Run Date: 10/31/2011 Sample ID: WG380705-12
 Instrument ID: ICP-THERMO1 Run Time: 10:22 Method: 6010B
 File ID: T1.103111.102254 Analyst: PDM QC Key: WATERLOO
 Workgroup (AAB#): WG379981 Cal ID: ICP-TH - 31-OCT-11
 Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.400	mg/L	100	90 - 110	
Cadmium	0.0500	0.0496	mg/L	99.2	90 - 110	

* Exceeds LIMITS Criteria

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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11100434 Run Date: 10/31/2011 Sample ID: WG380705-14
Instrument ID: ICP-THERMO1 Run Time: 10:57 Method: 6010B
File ID: T1.103111.105717 Analyst: PDM QC Key: WATERLOO
Workgroup (AAB#): WG379981 Cal ID: ICP-TH - 31-OCT-11
Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.396	mg/L	99.0	90 - 110	
Cadmium	0.0500	0.0500	mg/L	99.9	90 - 110	

* Exceeds LIMITS Criteria

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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11100434 Run Date: 10/31/2011 Sample ID: WG380705-18
 Instrument ID: ICP-THERMO1 Run Time: 11:12 Method: 6010B
 File ID: T1.103111.111241 Analyst: PDM QC Key: WATERLOO
 Workgroup (AAB#): WG379981 Cal ID: ICP-TH - 31-OCT-11
 Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.400	mg/L	99.9	90 - 110	
Cadmium	0.0500	0.0498	mg/L	99.5	90 - 110	

* Exceeds LIMITS Criteria

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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11100434 Run Date: 11/01/2011 Sample ID: WG380705-60
Instrument ID: ICP-THERMO1 Run Time: 01:16 Method: 6010B
File ID: T1.110111.011642 Analyst: PDM QC Key: WATERLOO
Workgroup (AAB#): WG379981 Cal ID: ICP-TH - 31-OCT-11
Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.384	mg/L	96.1	90 - 110	
Cadmium	0.0500	0.0483	mg/L	96.6	90 - 110	

* Exceeds LIMITS Criteria

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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11100434 Run Date: 11/01/2011 Sample ID: WG380705-63
 Instrument ID: ICP-THERMO1 Run Time: 02:02 Method: 6010B
 File ID: T1.110111.020257 Analyst: PDM QC Key: WATERLOO
 Workgroup (AAB#): WG379981 Cal ID: ICP-TH - 31-OCT-11
 Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.391	mg/L	97.7	90 - 110	
Cadmium	0.0500	0.0477	mg/L	95.5	90 - 110	

* Exceeds LIMITS Criteria

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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11100434 Run Date: 11/01/2011 Sample ID: WG380705-67
 Instrument ID: ICP-THERMO1 Run Time: 02:18 Method: 6010B
 File ID: T1.110111.021819 Analyst: PDM QC Key: WATERLOO
 Workgroup (AAB#): WG379981 Cal ID: ICP-TH - 31-OCT-11
 Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.381	mg/L	95.3	90 - 110	
Cadmium	0.0500	0.0481	mg/L	96.3	90 - 110	

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11100434 Run Date: 11/01/2011 Sample ID: WG380705-73
 Instrument ID: ICP-THERMO1 Run Time: 04:23 Method: 6010B
 File ID: T1.110111.042337 Analyst: PDM QC Key: WATERLOO
 Workgroup (AAB#): WG379981 Cal ID: ICP-TH - 31-OCT-11
 Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.378	mg/L	94.6	90 - 110	
Cadmium	0.0500	0.0473	mg/L	94.6	90 - 110	

* Exceeds LIMITS Criteria

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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11100434 Run Date: 11/01/2011 Sample ID: WG380705-77
 Instrument ID: ICP-THERMO1 Run Time: 04:38 Method: 6010B
 File ID: T1.110111.043859 Analyst: PDM QC Key: WATERLOO
 Workgroup (AAB#): WG379981 Cal ID: ICP-TH - 31-OCT-11
 Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.388	mg/L	97.1	90 - 110	
Cadmium	0.0500	0.0485	mg/L	97.0	90 - 110	

* Exceeds LIMITS Criteria

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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11100434 Run Date: 10/26/2011 Sample ID: WG380270-10
 Instrument ID: ICP-THERMO1 Run Time: 09:20 Method: 6010B
 File ID: T1.102611.092053 Analyst: PDM QC Key: WATERLOO
 Workgroup (AAB#): WG379620 Cal ID: ICP-TH - 26-OCT-11
 Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.405	mg/L	101	90 - 110	
Cadmium	0.0500	0.0500	mg/L	100	90 - 110	

* Exceeds LIMITS Criteria

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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11100434 Run Date: 10/26/2011 Sample ID: WG380270-16
 Instrument ID: ICP-THERMO1 Run Time: 11:07 Method: 6010B
 File ID: T1.102611.110715 Analyst: PDM QC Key: WATERLOO
 Workgroup (AAB#): WG379620 Cal ID: ICP-TH - 26-OCT-11
 Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.397	mg/L	99.3	90 - 110	
Cadmium	0.0500	0.0495	mg/L	99.1	90 - 110	

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
 PDF File ID: 2190594
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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11100434 Run Date: 10/26/2011 Sample ID: WG380270-19
 Instrument ID: ICP-THERMO1 Run Time: 11:33 Method: 6010B
 File ID: T1.102611.113355 Analyst: PDM QC Key: WATERLOO
 Workgroup (AAB#): WG379620 Cal ID: ICP-TH - 26-OCT-11
 Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.400	mg/L	99.9	90 - 110	
Cadmium	0.0500	0.0496	mg/L	99.1	90 - 110	

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11100434 Run Date: 10/27/2011 Sample ID: WG380270-61
 Instrument ID: ICP-THERMO1 Run Time: 01:44 Method: 6010B
 File ID: T1.102711.014415 Analyst: PDM QC Key: WATERLOO
 Workgroup (AAB#): WG379620 Cal ID: ICP-TH - 26-OCT-11
 Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.424	mg/L	106	90 - 110	
Cadmium	0.0500	0.0549	mg/L	110	90 - 110	

* Exceeds LIMITS Criteria

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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11100434 Run Date: 10/27/2011 Sample ID: WG380270-65
 Instrument ID: ICP-THERMO1 Run Time: 01:59 Method: 6010B
 File ID: T1.102711.015935 Analyst: PDM QC Key: WATERLOO
 Workgroup (AAB#): WG379620 Cal ID: ICP-TH - 26-OCT-11
 Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.424	mg/L	106	90 - 110	
Cadmium	0.0500	0.0545	mg/L	109	90 - 110	

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11100434 Run Date: 10/27/2011 Sample ID: WG380270-67
 Instrument ID: ICP-THERMO1 Run Time: 02:44 Method: 6010B
 File ID: T1.102711.024447 Analyst: PDM QC Key: WATERLOO
 Workgroup (AAB#): WG379620 Cal ID: ICP-TH - 26-OCT-11
 Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.430	mg/L	108	90 - 110	
Cadmium	0.0500	0.0545	mg/L	109	90 - 110	

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11100434 Run Date: 10/27/2011 Sample ID: WG380270-69
Instrument ID: ICP-THERMO1 Run Time: 03:03 Method: 6010B
File ID: T1.102711.030313 Analyst: PDM QC Key: WATERLOO
Workgroup (AAB#): WG379620 Cal ID: ICP-TH - 26-OCT-11
Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.425	mg/L	106	90 - 110	
Cadmium	0.0500	0.0545	mg/L	109	90 - 110	

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
PDF File ID: 2190594
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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11100434 Run Date: 10/27/2011 Sample ID: WG380270-73
 Instrument ID: ICP-THERMO1 Run Time: 03:18 Method: 6010B
 File ID: T1.102711.031835 Analyst: PDM QC Key: WATERLOO
 Workgroup (AAB#): WG379620 Cal ID: ICP-TH - 26-OCT-11
 Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.424	mg/L	106	90 - 110	
Cadmium	0.0500	0.0539	mg/L	108	90 - 110	

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
 PDF File ID: 2190594
 Report generated 11/01/2011 10:40



Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11100434 Run Date: 10/17/2011 Sample ID: WG379212-10
 Instrument ID: ICP-THERMO2 Run Time: 10:05 Method: 6010B
 File ID: T2.101711.100520 Analyst: EDL QC Key: WATERLOO
 Workgroup (AAB#): WG379202 Cal ID: ICP-TH - 17-OCT-11
 Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.414	mg/L	103	90 - 110	
Cadmium	0.0500	0.0519	mg/L	104	90 - 110	

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
 PDF File ID: 2184435
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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11100434 Run Date: 10/17/2011 Sample ID: WG379212-12
 Instrument ID: ICP-THERMO2 Run Time: 10:15 Method: 6010B
 File ID: T2.101711.101529 Analyst: EDL QC Key: WATERLOO
 Workgroup (AAB#): WG379202 Cal ID: ICP-TH - 17-OCT-11
 Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.409	mg/L	102	90 - 110	
Cadmium	0.0500	0.0515	mg/L	103	90 - 110	

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
 PDF File ID: 2184435
 Report generated 10/18/2011 14:07



Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11100434 Run Date: 10/17/2011 Sample ID: WG379212-15
 Instrument ID: ICP-THERMO2 Run Time: 10:36 Method: 6010B
 File ID: T2.101711.103602 Analyst: EDL QC Key: WATERLOO
 Workgroup (AAB#): WG379202 Cal ID: ICP-TH - 17-OCT-11
 Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.417	mg/L	104	90 - 110	
Cadmium	0.0500	0.0526	mg/L	105	90 - 110	

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
 PDF File ID: 2184435
 Report generated 10/18/2011 14:07



Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11100434 Run Date: 10/17/2011 Sample ID: WG379212-21
 Instrument ID: ICP-THERMO2 Run Time: 12:27 Method: 6010B
 File ID: T2.101711.122708 Analyst: EDL QC Key: WATERLOO
 Workgroup (AAB#): WG379202 Cal ID: ICP-TH - 17-OCT-11
 Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.415	mg/L	104	90 - 110	
Cadmium	0.0500	0.0521	mg/L	104	90 - 110	

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
 PDF File ID: 2184435
 Report generated 10/18/2011 14:07



Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11100434 Run Date: 10/17/2011 Sample ID: WG379212-23
 Instrument ID: ICP-THERMO2 Run Time: 13:06 Method: 6010B
 File ID: T2.101711.130615 Analyst: EDL QC Key: WATERLOO
 Workgroup (AAB#): WG379202 Cal ID: ICP-TH - 17-OCT-11
 Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.417	mg/L	104	90 - 110	
Cadmium	0.0500	0.0524	mg/L	105	90 - 110	

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
 PDF File ID: 2184435
 Report generated 10/18/2011 14:07



Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11100434 Run Date: 10/17/2011 Sample ID: WG379212-25
 Instrument ID: ICP-THERMO2 Run Time: 13:46 Method: 6010B
 File ID: T2.101711.134600 Analyst: EDL QC Key: WATERLOO
 Workgroup (AAB#): WG379202 Cal ID: ICP-TH - 17-OCT-11
 Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.407	mg/L	102	90 - 110	
Cadmium	0.0500	0.0513	mg/L	103	90 - 110	

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
 PDF File ID: 2184435
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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11100434 Run Date: 10/17/2011 Sample ID: WG379212-29
 Instrument ID: ICP-THERMO2 Run Time: 14:22 Method: 6010B
 File ID: T2.101711.142210 Analyst: EDL QC Key: WATERLOO
 Workgroup (AAB#): WG379202 Cal ID: ICP-TH - 17-OCT-11
 Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.406	mg/L	102	90 - 110	
Cadmium	0.0500	0.0510	mg/L	102	90 - 110	

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
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Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11100434 Run Date: 10/18/2011 Sample ID: WG379358-16
 Instrument ID: ICP-THERMO2 Run Time: 10:36 Method: 6010B
 File ID: T2.101811.103658 Analyst: EDL QC Key: WATERLOO
 Workgroup (AAB#): WG379347 Cal ID: ICP-TH - 18-OCT-11
 Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.401	mg/L	100	90 - 110	
Cadmium	0.0500	0.0505	mg/L	101	90 - 110	

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
 PDF File ID: 2184435
 Report generated 10/18/2011 14:07



Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11100434 Run Date: 10/18/2011 Sample ID: WG379358-20
 Instrument ID: ICP-THERMO2 Run Time: 11:55 Method: 6010B
 File ID: T2.101811.115509 Analyst: EDL QC Key: WATERLOO
 Workgroup (AAB#): WG379347 Cal ID: ICP-TH - 18-OCT-11
 Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.412	mg/L	103	90 - 110	
Cadmium	0.0500	0.0516	mg/L	103	90 - 110	

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
 PDF File ID: 2184435
 Report generated 10/18/2011 14:07



Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11100434 Run Date: 10/18/2011 Sample ID: WG379358-22
 Instrument ID: ICP-THERMO2 Run Time: 12:34 Method: 6010B
 File ID: T2.101811.123407 Analyst: EDL QC Key: WATERLOO
 Workgroup (AAB#): WG379347 Cal ID: ICP-TH - 18-OCT-11
 Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.402	mg/L	101	90 - 110	
Cadmium	0.0500	0.0508	mg/L	102	90 - 110	

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
 PDF File ID: 2184435
 Report generated 10/18/2011 14:07



Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11100434 Run Date: 10/18/2011 Sample ID: WG379358-24
 Instrument ID: ICP-THERMO2 Run Time: 13:13 Method: 6010B
 File ID: T2.101811.131345 Analyst: EDL QC Key: WATERLOO
 Workgroup (AAB#): WG379347 Cal ID: ICP-TH - 18-OCT-11
 Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.411	mg/L	103	90 - 110	
Cadmium	0.0500	0.0521	mg/L	104	90 - 110	

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
 PDF File ID: 2184435
 Report generated 10/18/2011 14:07



Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11100434 Run Date: 10/18/2011 Sample ID: WG379358-28
 Instrument ID: ICP-THERMO2 Run Time: 13:49 Method: 6010B
 File ID: T2.101811.134943 Analyst: EDL QC Key: WATERLOO
 Workgroup (AAB#): WG379347 Cal ID: ICP-TH - 18-OCT-11
 Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.413	mg/L	103	90 - 110	
Cadmium	0.0500	0.0526	mg/L	105	90 - 110	

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
 PDF File ID: 2184435
 Report generated 10/18/2011 14:07



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11100434
Instrument ID: ICP-THERMO1
Sol. A: WG379938-08
Sol. AB: WG379938-09

File ID: T1.102411.090425
File ID: T1.102411.090819

Workgroup (AAB#): WG379981
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	0.00196	NS	0.250	0.259	104	
Cadmium	NS	-0.000230	NS	0.500	0.485	97.0	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11100434
Instrument ID: ICP-THERMO1
Sol. A: WG379938-63
Sol. AB: WG379938-64

File ID: T1.102511.020242
File ID: T1.102511.020632

Workgroup (AAB#): WG379981
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	0.00305	NS	0.250	0.273	109	
Cadmium	NS	-0.000110	NS	0.500	0.497	99.4	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11100434
Instrument ID: ICP-THERMO1
Sol. A : WG379938-73
Sol. AB : WG379938-74

File ID: T1.102511.041900
File ID: T1.102511.042251

Workgroup (AAB#): WG379981
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	0.00390	NS	0.250	0.269	108	
Cadmium	NS	-0.000270	NS	0.500	0.499	99.8	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11100434
Instrument ID: ICP-THERMO1
Sol. A: WG380705-08
Sol. AB: WG380705-09

File ID: T1.103111.092903
File ID: T1.103111.093304

Workgroup (AAB#): WG379981
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	0.000230	NS	0.250	0.256	102	
Cadmium	NS	-0.000110	NS	0.500	0.467	93.4	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11100434
Instrument ID: ICP-THERMO1
Sol. A: WG380705-16
Sol. AB: WG380705-17

File ID: T1.103111.110450
File ID: T1.103111.110847

Workgroup (AAB#): WG379981
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.000640	NS	0.250	0.251	100	
Cadmium	NS	-0.0000600	NS	0.500	0.464	92.8	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11100434
Instrument ID: ICP-THERMO1
Sol. A: WG380705-65
Sol. AB: WG380705-66

File ID: T1.110111.021029
File ID: T1.110111.021427

Workgroup (AAB#): WG379981
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.00257	NS	0.250	0.243	97.2	
Cadmium	NS	-0.000110	NS	0.500	0.448	89.6	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11100434
Instrument ID: ICP-THERMO1
Sol. A: WG380705-75
Sol. AB: WG380705-76

File ID: T1.110111.043109
File ID: T1.110111.043507

Workgroup (AAB#): WG379981
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.00167	NS	0.250	0.246	98.4	
Cadmium	NS	0	NS	0.500	0.451	90.2	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11100434
Instrument ID: ICP-THERMO1
Sol. A: WG380270-08
Sol. AB: WG380270-09

File ID: T1.102611.091306
File ID: T1.102611.091701

Workgroup (AAB#): WG379620
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.000530	NS	0.250	0.254	102	
Cadmium	NS	-0.000210	NS	0.500	0.474	94.8	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11100434
Instrument ID: ICP-THERMO1
Sol. A: WG380270-63
Sol. AB: WG380270-64

File ID: T1.102711.015146
File ID: T1.102711.015541

Workgroup (AAB#): WG379620
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	0.00352	NS	0.250	0.261	104	
Cadmium	NS	-0.000550	NS	0.500	0.501	100	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11100434
Instrument ID: ICP-THERMO1
Sol. A: WG380270-71
Sol. AB: WG380270-72

File ID: T1.102711.031043
File ID: T1.102711.031440

Workgroup (AAB#): WG379620
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.00192	NS	0.250	0.262	105	
Cadmium	NS	-0.000550	NS	0.500	0.514	103	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11100434
Instrument ID: ICP-THERMO2
Sol. A: WG379212-08
Sol. AB: WG379212-09

File ID: T2.101711.095853
File ID: T2.101711.100207

Workgroup (AAB#): WG379202
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.00261	NS	0.250	0.246	98.4	
Cadmium	NS	0.000370	NS	0.500	0.474	94.8	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11100434
Instrument ID: ICP-THERMO2
Sol. A: WG379212-27
Sol. AB: WG379212-28

File ID: T2.101711.141543
File ID: T2.101711.141855

Workgroup (AAB#): WG379202
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.00324	NS	0.250	0.245	98.0	
Cadmium	NS	0.000390	NS	0.500	0.475	95.0	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11100434
Instrument ID: ICP-THERMO2
Sol. A: WG379358-14
Sol. AB: WG379358-15

File ID: T2.101811.103029
File ID: T2.101811.103344

Workgroup (AAB#): WG379347
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.00524	NS	0.250	0.247	98.8	
Cadmium	NS	0.000610	NS	0.500	0.484	96.8	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11100434
Instrument ID: ICP-THERMO2
Sol. A: WG379358-26
Sol. AB: WG379358-27

File ID: T2.101811.134315
File ID: T2.101811.134628

Workgroup (AAB#): WG379347
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.00366	NS	0.250	0.243	97.2	
Cadmium	NS	0.000580	NS	0.500	0.479	95.8	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
 INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Login Number: L11100434

Date: 01/21/2011

Instrument ID: ICP-THERMO1

Method: 6010B

Analyte	Wave Length	AL	AS	B	BA	BE
ALUMINUM	308.20	0	0	0	0	0
ANTIMONY	206.80	0.0000190	0	0	0	0
ARSENIC	189.00	0	0	0	0	0
BARIUM	455.40	0	0	0	0	0
BERYLLIUM	313.00	0	0	0	0	0
BORON	249.70	0	0	0	0	0
CADMIUM	228.80	0	0.00200	0	-0.0000800	0
CALCIUM	422.70	0	0	0	0	0
CHROMIUM	267.70	0	0	0	0	0
COBALT	228.60	0	0	0	0	0
COPPER	224.70	0	0	0	0	0
IRON	261.20	0	0	0	0	0
LEAD	220.30	0.000280	0	0	0	0
LITHIUM	670.80	0	0	0	0	0
MAGNESIUM	279.10	0	0	0	0	0
MANGANESE	257.60	0	0	0	0	0
MOLYBDENUM	202.03	0	0	0	0	0
NICKEL	231.60	0	0	0	0	0
POTASSIUM	766.40	0	0	0	0	0
SELENIUM	196.00	-0.00000200	0	0	0	0
SILICON	212.40	0	0	0	0	0
SILVER	328.00	0	0	0	0	0
SODIUM	589.50	0	0	0	0	0
STRONTIUM	407.80	0	0	0	0	0
THALLIUM	190.80	-0.0000120	0	0	0	0
TIN	189.90	0	0	0	0	0
TITANIUM	337.30	0	0	0	0	0
VANADIUM	292.40	0	0	0	0	0
ZINC	206.20	0.0000200	0	0	0	0

CORR_FACTORS - Modified 03/05/2008
 PDF File ID: 2190586
 Report generated: 11/01/2011 10:34



Microbac Laboratories Inc.
 INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Login Number: L11100434

Date: 01/21/2011

Instrument ID: ICP-THERMO1

Method: 6010B

Analyte	Wave Length	CA	CO	CR	CU	FE
ALUMINUM	308.20	0	-0.000820	0	0	0
ANTIMONY	206.80	0	0	0.00650	0	0.0000560
ARSENIC	189.00	0	0	0.000490	0	-0.0000300
BARIUM	455.40	0	0	0	0	0
BERYLLIUM	313.00	0	0	0	0	0
BORON	249.70	0	0.00343	0	0	-0.000619
CADMIUM	228.80	0	-0.00210	0	0	0.000000100
CALCIUM	422.70	0	0	0	0	0
CHROMIUM	267.70	0	0	0	0	0.0000550
COBALT	228.60	0	0	-0.000200	0	0
COPPER	224.70	0	0.0000770	0	0	0.000750
IRON	261.20	0	0	-0.00100	0	0
LEAD	220.30	0	-0.0000130	-0.000132	0.000609	0
LITHIUM	670.80	0	0	0	0	0
MAGNESIUM	279.10	0	0	0	0	0
MANGANESE	257.60	0	0	-0.0000920	0	0
MOLYBDENUM	202.03	0	0	0	0	0
NICKEL	231.60	0	-0.000500	0	0	0.0000320
POTASSIUM	766.40	0	0	0	0	0
SELENIUM	196.00	0	0	0	0	0
SILICON	212.40	0	0	0	0	0
SILVER	328.00	0	0	0	0	0
SODIUM	589.50	0	0	0	0	0
STRONTIUM	407.80	0.0000550	0	0	0	0
THALLIUM	190.80	0	0.00297	0.000276	0	0
TIN	189.90	0	0	0	0	0
TITANIUM	337.30	0	0	0	0	0
VANADIUM	292.40	0	0	-0.00138	0	-0.0000300
ZINC	206.20	0	0	-0.000800	0	0

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Microbac Laboratories Inc.
 INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Login Number: L11100434

Date: 01/21/2011

Instrument ID: ICP-THERMO1

Method: 6010B

Analyte	Wave Length	LI	MG	MN	MO	NA
ALUMINUM	308.20	0	0	0	0.0163	0
ANTIMONY	206.80	0	0	0	0.000670	0
ARSENIC	189.00	0	0	0	0.00139	0
BARIUM	455.40	0	0	0	0	0
BERYLLIUM	313.00	0	0	0	0	0
BORON	249.70	0	0	0	-0.00190	0
CADMIUM	228.80	0	0	0	0.0000320	0
CALCIUM	422.70	0	0	0	0	0
CHROMIUM	267.70	0	0	0.00475	0	0
COBALT	228.60	0	0	0	-0.000983	0
COPPER	224.70	0	0	0	0.00200	0
IRON	261.20	0	0	0	0	0
LEAD	220.30	0	0	0	-0.00280	0
LITHIUM	670.80	0	0	0	0	0
MAGNESIUM	279.10	0	0	-0.00190	-0.0130	0
MANGANESE	257.60	0	0.0000190	0	0	0
MOLYBDENUM	202.03	0	0	0	0	0
NICKEL	231.60	0	0	0	0	0
POTASSIUM	766.40	0	0	0	0	0
SELENIUM	196.00	0	0	0.000800	0.000156	0
SILICON	212.40	0	0	0	0.0187	0
SILVER	328.00	0	0	0	-0.0000440	0
SODIUM	589.50	0	0	0	0	0
STRONTIUM	407.80	0	0	0	0	0
THALLIUM	190.80	0	0	0.00100	0	0
TIN	189.90	0	0	0	0	0
TITANIUM	337.30	0	0	0	-0.000153	0
VANADIUM	292.40	0	0	-0.000110	-0.00778	0
ZINC	206.20	0	0	0	0	0

CORR_FACTORS - Modified 03/05/2008
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Microbac Laboratories Inc.
 INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Login Number: L11100434

Date: 01/21/2011

Instrument ID: ICP-THERMO1

Method: 6010B

Analyte	Wave Length	NI	PB	SB	SN	SR
ALUMINUM	308.20	0	0	0	0	0
ANTIMONY	206.80	0	0	0	-0.00840	0
ARSENIC	189.00	0	0	0	0	0
BARIUM	455.40	0	0	0	0	0
BERYLLIUM	313.00	0	0	0	0	0
BORON	249.70	0	0	0	0	0
CADMIUM	228.80	-0.000128	0	0	0	0
CALCIUM	422.70	0	0	0	0	0
CHROMIUM	267.70	0	0	0	0	0
COBALT	228.60	0.000175	0	0	0	0
COPPER	224.70	-0.0120	0.00300	0	0	0
IRON	261.20	0	0	0	0	0
LEAD	220.30	0.000110	0	0	0	0
LITHIUM	670.80	0	0	0	0	0
MAGNESIUM	279.10	0	0	0	0	0
MANGANESE	257.60	0	0	0	0	0
MOLYBDENUM	202.03	0	0	0	0	0
NICKEL	231.60	0	0	0	0	0
POTASSIUM	766.40	0	0	0	0	0
SELENIUM	196.00	0	0	0	0	0
SILICON	212.40	0	0	0	0	0
SILVER	328.00	0	0	0	0	0
SODIUM	589.50	0	0	0	0	0
STRONTIUM	407.80	0	0	0	0	0
THALLIUM	190.80	0	0	0	0	0
TIN	189.90	0	0	0	0	0
TITANIUM	337.30	0	0	0	0	0
VANADIUM	292.40	0	0	0	0	0
ZINC	206.20	0	0	0	0	0

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Microbac Laboratories Inc.
 INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Login Number: L11100434

Date: 01/21/2011

Instrument ID: ICP-THERMO1

Method: 6010B

Analyte	Wave Length	TI	V	ZN
ALUMINUM	308.20	0	0.00300	0
ANTIMONY	206.80	-0.00199	-0.00438	0
ARSENIC	189.00	0	0.000107	0
BARIUM	455.40	0	0	0
BERYLLIUM	313.00	-0.000770	0.00170	0
BORON	249.70	0	0	0
CADMIUM	228.80	0	0.000102	0
CALCIUM	422.70	0	0	0
CHROMIUM	267.70	0.0000550	0	0
COBALT	228.60	0.00158	0.0000200	0
COPPER	224.70	0.000269	0	0
IRON	261.20	0	0	0
LEAD	220.30	0	-0.000126	0
LITHIUM	670.80	0	0	0
MAGNESIUM	279.10	-0.00290	0	0
MANGANESE	257.60	0	0	0
MOLYBDENUM	202.03	0	-0.000110	0
NICKEL	231.60	0	0	0
POTASSIUM	766.40	0	0	0
SELENIUM	196.00	0	0	0
SILICON	212.40	0	0	0
SILVER	328.00	-0.00620	-0.00617	0
SODIUM	589.50	0	0	0
STRONTIUM	407.80	0	0	0
THALLIUM	190.80	-0.00170	-0.00116	0
TIN	189.90	-0.00190	0	0
TITANIUM	337.30	0	0	0
VANADIUM	292.40	0.000600	0	0
ZINC	206.20	0	0	0

CORR_FACTORS - Modified 03/05/2008
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Microbac Laboratories Inc.
 INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Login Number: L11100434

Date: 01/25/2011

Instrument ID: ICP-THERMO2

Method: 6010B

Analyte	Wave Length	AL	AS	B	BA	BE
ALUMINUM	308.20	0	0	0	0	0
ANTIMONY	206.80	0.0000210	0	0	0	0
ARSENIC	189.00	0	0	0	0	0
BARIUM	455.40	0	0	0	0	0
BERYLLIUM	313.00	0	0	0	0	0
BORON	249.70	0	0	0	0	0
CADMIUM	228.80	0	0.00190	0	-0.000140	0
CALCIUM	422.70	0	0	0	0	0
CHROMIUM	267.70	0	0	0	0	0
COBALT	228.60	0	0	0	0	0
COPPER	224.70	0	0	0	0	0
IRON	261.20	0	0	0	0	0
LEAD	220.30	0.000335	0	0	0	0
LITHIUM	670.80	0	0	0	0	0
MAGNESIUM	279.10	0	0	0	0	0
MANGANESE	257.60	0	0	0	0	0
MOLYBDENUM	202.03	0	0	0	0	0
NICKEL	231.60	0	0	0	0	0
PHOSPHORUS	214.90	-0.000750	0	0	0	0
POTASSIUM	766.40	0	0	0	0	0
SELENIUM	196.00	-0.0000300	0	0	0	0
SILICON	212.40	0	0	0	0	0
SILVER	328.00	0	0	0	0	0
SODIUM	589.50	0	0	0	0	0
STRONTIUM	407.80	0	0	0	0	0
THALLIUM	190.80	-0.0000120	0	0	0	0
TIN	189.90	0	0	0	0	0
TITANIUM	337.30	0	0	0	0	0
VANADIUM	292.40	0	0	0	0	0
ZINC	206.20	0.0000420	0	0	0	0
ZIRCONIUM	339.20	0	0	0	0	0

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Microbac Laboratories Inc.
 INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Login Number: L11100434

Date: 01/25/2011

Instrument ID: ICP-THERMO2

Method: 6010B

Analyte	Wave Length	CA	CO	CR	CU	FE
ALUMINUM	308.20	0	-0.000820	0	0	0
ANTIMONY	206.80	0	0	0.00950	0	0.0000560
ARSENIC	189.00	0	0	0.000490	0	-0.0000120
BARIUM	455.40	0	0	0	0	0
BERYLLIUM	313.00	0	0	0	0	0
BORON	249.70	0	0.00343	0	0	-0.000619
CADMIUM	228.80	0	-0.00200	0	0	-0.00000800
CALCIUM	422.70	0	0	0	0	0
CHROMIUM	267.70	0	0	0	0	0.0000530
COBALT	228.60	0	0	0.000108	0	0
COPPER	224.70	0	0.0000770	0	0	0.000196
IRON	261.20	0	0	0	0	0
LEAD	220.30	0	-0.0000930	-0.000172	0.000809	0
LITHIUM	670.80	0	0	0	0	0
MAGNESIUM	279.10	0	0	0	0	0
MANGANESE	257.60	0	0	-0.0000920	0	0
MOLYBDENUM	202.03	0	0	0	0	0
NICKEL	231.60	0	0.000100	0	0	0.0000320
PHOSPHORUS	214.90	0	0	0	0.00200	0.00120
POTASSIUM	766.40	0	0	0	0	0
SELENIUM	196.00	0	0	0	0	0
SILICON	212.40	0	0	0	0	0
SILVER	328.00	0	0	0	0	0
SODIUM	589.50	0	0	0	0	0
STRONTIUM	407.80	0.0000570	0	0	0	0
THALLIUM	190.80	0	0.00397	0.000276	0	0
TIN	189.90	0	0	0	0	0
TITANIUM	337.30	0	0	0	0	0
VANADIUM	292.40	0	0	0	0	-0.00000200
ZINC	206.20	0	0	0	0	0
ZIRCONIUM	339.20	0	0	0	0	-0.0000300

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Microbac Laboratories Inc.
 INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Login Number: L11100434
 Instrument ID: ICP-THERMO2

Date: 01/25/2011
 Method: 6010B

Analyte	Wave Length	LI	MG	MN	MO	NA
ALUMINUM	308.20	0	0	0	0.0153	0
ANTIMONY	206.80	0	0	0	0.000670	0
ARSENIC	189.00	0	0	0	0.00109	0
BARIUM	455.40	0	0	0	0	0
BERYLLIUM	313.00	0	0	0	0	0
BORON	249.70	0	0	0	-0.00169	0
CADMIUM	228.80	0	0	0	0.0000220	0
CALCIUM	422.70	0	0	0	0	0
CHROMIUM	267.70	0	0	0.000160	0	0
COBALT	228.60	0	0	0	-0.000983	0
COPPER	224.70	0	0	0	0.00274	0
IRON	261.20	0	0	0	0	0
LEAD	220.30	0	0	0	-0.00183	0
LITHIUM	670.80	0	0	0	0	0
MAGNESIUM	279.10	0	0	-0.00190	-0.0110	0
MANGANESE	257.60	0	0.00000900	0	0	0
MOLYBDENUM	202.03	0	0	0	0	0
NICKEL	231.60	0	0	0	0	0
PHOSPHORUS	214.90	0	0	0	0.00800	0
POTASSIUM	766.40	0	0	0	0	0
SELENIUM	196.00	0	0	0	0.000156	0
SILICON	212.40	0	0	0	0.0187	0
SILVER	328.00	0	0	0	-0.0000440	0
SODIUM	589.50	0	0	0	0	0
STRONTIUM	407.80	0	0	0	0	0
THALLIUM	190.80	0	0	0	0	0
TIN	189.90	0	0	0	0	0
TITANIUM	337.30	0	0	0	-0.000153	0
VANADIUM	292.40	0	0	0	-0.00778	0
ZINC	206.20	0	0	0	0	0
ZIRCONIUM	339.20	0	0	0	0	0

CORR_FACTORS - Modified 03/05/2008
 PDF File ID: 2184427
 Report generated: 10/18/2011 14:05



Microbac Laboratories Inc.
 INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Login Number: L11100434

Date: 01/25/2011

Instrument ID: ICP-THERMO2

Method: 6010B

Analyte	Wave Length	NI	SB	SN	SR	TI
ALUMINUM	308.20	0	0	0	0	0
ANTIMONY	206.80	0	0	-0.00840	0	-0.000990
ARSENIC	189.00	0	0	0	0	0
BARIUM	455.40	0	0	0	0	0
BERYLLIUM	313.00	0	0	0	0	0
BORON	249.70	0	0	0	0	0
CADMIUM	228.80	-0.000128	0	0	0	0
CALCIUM	422.70	0	0	0	0	0
CHROMIUM	267.70	0	0	0	0	0.0000550
COBALT	228.60	0.000175	0	0	0	0.00188
COPPER	224.70	-0.0120	0	0	0	0.000269
IRON	261.20	0	0	0	0	0
LEAD	220.30	0.000110	0	0	0	0
LITHIUM	670.80	0	0	0	0	0
MAGNESIUM	279.10	0	0	0	0	-0.00290
MANGANESE	257.60	0	0	0	0	0
MOLYBDENUM	202.03	0	0	0	0	0
NICKEL	231.60	0	0	0	0	0
PHOSPHORUS	214.90	0	0	0	0	0
POTASSIUM	766.40	0	0	0	0	0
SELENIUM	196.00	0	0	0	0	0
SILICON	212.40	0	0	0	0	0
SILVER	328.00	0	0	0	0	-0.00620
SODIUM	589.50	0	0	0	0	0
STRONTIUM	407.80	0	0	0	0	0
THALLIUM	190.80	0	0	0	0	-0.00170
TIN	189.90	0	0	0	0	-0.00220
TITANIUM	337.30	0	0	0	0	0
VANADIUM	292.40	0	0	0	0	0.000824
ZINC	206.20	0	0	0	0	0
ZIRCONIUM	339.20	0	0	0	0	0

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 PDF File ID: 2184427
 Report generated: 10/18/2011 14:05



Microbac Laboratories Inc.
 INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Login Number: L11100434

Date: 01/25/2011

Instrument ID: ICP-THERMO2

Method: 6010B

Analyte	Wave Length	v	ZN	ZR
ALUMINUM	308.20	0.00300	0	0
ANTIMONY	206.80	-0.00438	0	0
ARSENIC	189.00	0.000107	0	0
BARIUM	455.40	0	0	0
BERYLLIUM	313.00	0	0	0
BORON	249.70	0	0	0
CADMIUM	228.80	0.0000820	0	0
CALCIUM	422.70	0	0	0
CHROMIUM	267.70	0	0	0
COBALT	228.60	0.0000200	0	0
COPPER	224.70	0	0	0
IRON	261.20	0	0	0
LEAD	220.30	-0.000126	0	0
LITHIUM	670.80	0	0	0
MAGNESIUM	279.10	0	0	0
MANGANESE	257.60	0	0	0
MOLYBDENUM	202.03	-0.000110	0	0
NICKEL	231.60	0	0	0
PHOSPHORUS	214.90	-0.00500	0	0.00200
POTASSIUM	766.40	0	0	0
SELENIUM	196.00	0	0	0
SILICON	212.40	0	0	0
SILVER	328.00	-0.00617	0	0
SODIUM	589.50	0	0	0
STRONTIUM	407.80	0	0	0
THALLIUM	190.80	-0.0282	0	0
TIN	189.90	0	0	0
TITANIUM	337.30	0	0	0
VANADIUM	292.40	0	0	0
ZINC	206.20	0	0	0
ZIRCONIUM	339.20	0	0	0

CORR_FACTORS - Modified 03/05/2008
 PDF File ID: 2184427
 Report generated: 10/18/2011 14:05



Microbac Laboratories Inc.
LINEAR RANGE (QUARTERLY)

Login Number: L11100434 Date: 09/30/2011
Insturment ID: ICP-THERMO1 Method: 6010B

Analyte	Integration Time (Sec.)	Concentration (mg/L)
Aluminum	10.00	810.0
Antimony	10.00	90.0
Arsenic	10.00	72.0
Barium	10.00	81.0
Beryllium	15.00	9.0
Boron	10.00	90.0
Cadmium	10.00	4.5
Calcium	10.00	900.0
Chromium	10.00	90.0
Cobalt	10.00	90.0
Copper	10.00	180.0
Iron	5.00	900.0
Lead	10.00	225.0
Lithium	10.00	90.0
Magnesium	15.00	810.0
Manganese	15.00	180.0
Molybdenum	10.00	27.0
Nickel	10.00	90.0
Potassium	10.00	315.0
Selenium	10.00	90.0
Silver	5.00	9.0
Sodium	10.00	270.0
Strontium	10.00	4.5
Thallium	10.00	18.0
Tin	10.00	90.0
Titanium	15.00	90.0
Vanadium	10.00	18.0
Zinc	10.00	45.0

Comments:

All analytes passed acceptance criteria at the specified concentration.



Microbac Laboratories Inc.
LINEAR RANGE (QUARTERLY)

Login Number: L11100434
Instrument ID: ICP-THERMO2

Date: 09/29/2011
Method: 6010B

Analyte	Integration Time (Sec.)	Concentration (mg/L)
Aluminum	10.00	810.0
Antimony	10.00	90.0
Arsenic	10.00	90.0
Barium	10.00	91.0
Beryllium	15.00	4.5
Boron	10.00	90.0
Cadmium	10.00	16.2
Calcium	10.00	900.0
Chromium	10.00	90.0
Cobalt	10.00	90.0
Copper	10.00	180.0
Iron	5.00	900.0
Lead	10.00	180.0
Lithium	10.00	90.0
Magnesium	15.00	900.0
Manganese	15.00	180.0
Molybdenum	10.00	9.0
Nickel	10.00	90.0
Phosphorus	10.00	900.0
Potassium	10.00	315.0
Selenium	10.00	90.0
Silicon	10.00	90.0
Silver	5.00	9.0
Sodium	10.00	315.0
Strontium	10.00	4.5
Thallium	10.00	9.0
Tin	10.00	90.0
Titanium	15.00	90.0
Vanadium	10.00	90.0
Zinc	10.00	45.0
Zirconium	10.00	45.0

Comments:

All analytes passed acceptance criteria at the specified concentration.

LINEAR_RANGE - Modified 03/06/2008
PDF File ID: 2184426
Report generated: 10/18/2011 14:05



2.1 Metals Data

2.1.2 Metals ICP-MS Data

2.1.2.1 Summary Data



Login Number: L11100434
Department: Metals
Analyst: Ji Hu

METHOD

Preparation: SW-846 3015

Analysis: SW-846 6020

HOLDING TIMES

Sample Preparation: All holding times were met.

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial Calibration: All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Interference Check Standards: All acceptance criteria were met.

Continuing Calibration: All acceptance criteria were met.

Continuing Calibration Blank: All acceptance criteria were met.

Low Level Check: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Serial Dilution/Post Digestion Spikes: WG380105 - All acceptance criteria were met.

Matrix Spikes: All acceptance criteria were met.

SAMPLES

Samples: All acceptance criteria were met.

Narrative ID: 37177

Approved By: Sheri Pfalzgraf

A handwritten signature in black ink that reads "Sheri L. Pfalzgraf".

LABORATORY REPORT

L11100434

11/08/11 11:18

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta , OH 45750
(740) 373 - 4071

For

Account Name: CH2MHILL, Inc
CH2MHILL
1034 S. Brentwood Blvd, Suite 2300
Richmond Heights, MO 63117
Attention: Shane Lowe

Project Number: 2736.103
Project: DOW WATERLOO Soil & GW
Site: WATERLOO
Invoice Number: 621118
P.O. Number: 416903-1

Sample Analysis Summary

<u>Client ID</u>	<u>Lab ID</u>	<u>Method</u>	<u>Dilution</u>	<u>Date Received</u>
EB-SOIL-10112011	L11100434-58	6020	1	13-OCT-11



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-58	PrePrep Method: NONE	Instrument: ELAN-ICP
Client ID: EB-SOIL-10112011	Prep Method: 3015	Prep Date: 10/18/2011 06:38
Matrix: Water	Analytical Method: 6020	Cal Date: 10/26/2011 09:48
Workgroup Number: WG380105	Analyst: JYH	Run Date: 10/26/2011 18:09
Collect Date: 10/11/2011 17:30	Dilution: 1	File ID: EL.102611.180910
Sample Tag: 01	Units: mg/L	

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2		U	0.00100	0.000500
Cadmium, Total	7440-43-9		U	0.000600	0.000300

U Not detected at or above adjusted sample detection limit.



2.1.2.2 QC Summary Data

Example 6020 Calculations
Perkin Elmer ELAN 6100

1.0 Initial Calibration (ICAL) Parameters

The system performs linear regression from data consisting of a blank and three standards.

2.0 Calculating the concentration (C) of an element in water using data from prep log, run log, and quantitation report (note:the data system performs this calculation automatically when correction factors have been entered):

$$Cx = Cs \times \frac{Vf}{Vi} \times D$$

Where:

Cs = Concentration computed by the data system (ug/L)

Vf = Final volume

Vi = Initial volume

D = Dilution factor as a multiplier (10X = 10)

Cx = Concentration of element in (ug/L)

Example:

0.1

100

40

1

0.25

3.0 Calculating the concentration (C) of an element in soil using data from prep log, run log, and quantitation report (note: the data system performs this calculation automatically when correction factors have been entered):

$$Cx = Cs \times \frac{Vf}{Vi} \times D$$

Where:

Cs = Concentration computed by the data system (ug/L)

Vf = Final volume

Vi = Initial volume

D = Dilution factor as a multiplier (10X = 10)

Cx = Concentration of element in (ug/kg)

Example:

0.1

200

0.5

1

40

4.0 Adjusting the concentration to dry weight:

$$Cdry = \frac{Cx \times 100}{Px}$$

Where:

Cx = Concentration calculated as received (wet basis)

Px = Percent solids of sample (%wt)

$Cdry$ = Concentration calculated as dry weight (ug/kg)

Example:

40

80

50

50 ug/kg = 0.050 mg/kg

Perkin Elmer ELAN ICP/MS

STANDARDS KEY

- QC Std 1 - ICV
- QC Std 2 - ICB
- QC Std 3 - LLICV
- QC Std 4 - ICSA
- QC Std 5 - ICSAB
- QC Std 6 - CCV
- QC Std 7 - CCB
- QC Std 8 - LLCCV

Calibration Solutions

Analyte	Stock Conc. (mg/L)	S1 (mg/L)	S2 (mg/L)	S3 (mg/L)	S4 (mg/L)
Al	10	0	0.0004	0.05	0.1
Sb	10	0	0.0004	0.05	0.1
As	10	0	0.0004	0.05	0.1
Ba	10	0	0.0004	0.05	0.1
Be	10	0	0.0004	0.05	0.1
Ca	1000	0	0.04	5	10
Cd	10	0	0.0004	0.05	0.1
Cr	10	0	0.0004	0.05	0.1
Co	10	0	0.0004	0.05	0.1
Cu	10	0	0.0004	0.05	0.1
Fe	1000	0	0.04	5	10
Pb	10	0	0.0004	0.05	0.1
Mg	1000	0	0.04	5	10
Mn	10	0	0.0004	0.05	0.1
Ni	10	0	0.0004	0.05	0.1
K	1000	0	0.04	5	10
Se	10	0	0.0004	0.05	0.1
Ag	10	0	0.0004	0.05	0.1
Na	1000	0	0.04	5	10
Tl	10	0	0.0004	0.05	0.1
V	10	0	0.0004	0.05	0.1
U	1000	0	0.0004	0.05	0.1
Zn	10	0	0.0004	0.05	0.1

Microbac Laboratories Inc.
Microwave Digestion Log

Workgroup: WG379278
Analyst: VC
Spike Analyst: VC
Run Date: 10/18/2011 06:38
Method: 3015
Balance: BAL016
Instrument: MW-2

SOP: ME407 Revision 11
Spike Solution: STD47574
Spike Witness: REK
HNO3 Lot #: COA15720
Digestion Tubes Lot #: COA15719
MS Lot #: COA15665

	SAMPLE #	Type	Matrix	Initial Amount	Final Volume	Initial Vessel Wt	Final Vessel Wt	Spike Amount	Due Date
1	WG379278-02	BLANK	1	40 mL	100 mL	207.761 g	207.752 g		
2	WG379278-03	LCS	1	40 mL	100 mL	209.097 g	209.088 g	.25 mL	
3	L11100432-01	SAMP	1	40 mL	100 mL	206.251 g	206.245 g		10/27/11
4	WG379278-01	REF	1	40 mL	100 mL	206.94 g	206.924 g		
5	L11100432-02	SAMP	1	40 mL	100 mL	206.94 g	206.924 g		10/27/11
6	L11100432-03	SAMP	1	40 mL	100 mL	205.774 g	205.762 g		10/27/11
7	L11100432-04	SAMP	1	40 mL	100 mL	207.265 g	207.258 g		10/27/11
8	L11100432-05	SAMP	1	40 mL	100 mL	207.189 g	207.171 g		10/27/11
9	L11100432-06	SAMP	1	40 mL	100 mL	206.294 g	206.273 g		10/27/11
10	L11100432-07	SAMP	1	40 mL	100 mL	207.52 g	207.497 g		10/27/11
11	L11100434-58	SAMP	1	40 mL	100 mL	206.621 g	206.602 g		10/27/11
12	L11100435-03	SAMP	1	40 mL	100 mL	207.325 g	207.308 g		10/25/11
13	L11100435-04	SAMP	1	40 mL	100 mL	206.366 g	206.353 g		10/25/11
14	L11100441-08	SAMP	1	40 mL	100 mL	206.625 g	206.61 g		10/24/11
15	L11100441-16	SAMP	1	40 mL	100 mL	206.401 g	206.389 g		10/24/11
16	L11100441-21	SAMP	1	40 mL	100 mL	206.089 g	206.075 g		10/24/11
17	L11100441-22	SAMP	1	40 mL	100 mL	205.755 g	205.739 g		10/24/11
18	L11100454-01	SAMP	1	40 mL	100 mL	206.346 g	206.334 g		10/28/11
19	L11100454-02	SAMP	1	40 mL	100 mL	205.552 g	205.536 g		10/28/11
20	WG379278-04	MS	1	40 mL	100 mL	206.409 g	206.398 g	.25 mL	
21	WG379278-05	MSD	1	40 mL	100 mL	204.859 g	204.842 g	.25 mL	

L11100435-03	Filtered w/coal15665
L11100435-04	Filtered w/coal15665

Analyst: Vesha Collier

Reviewer: [Signature]



Microbac Laboratories Inc.
Instrument Run Log

Instrument: ELAN-ICP Dataset: 102611A.REP
 Analyst1: JYH Analyst2: N/A
 Method: 6020 SOP: ME700 Rev: 7
 Maintenance Log ID: 39437

Calibration Std: STD47983 ICV Std: STD48290 Post Spike: STD47984
 ICSA: STD47981 ICSAB: STD47901 Int. Std: STD48279
 CCV: STD48291 LLCCV: STD48186

380206,380236,380052,380105,379819,380000,379820,380194

Workgroups:

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
1	EL.102611.092015	Blank	Blank		1		10/26/11 09:20
2	EL.102611.092721	WG380255-01	Calibration Point		1		10/26/11 09:27
3	EL.102611.093427	WG380255-02	Calibration Point		1		10/26/11 09:34
4	EL.102611.094134	WG380255-03	Calibration Point		1		10/26/11 09:41
5	EL.102611.094841	WG380255-04	Calibration Point		1		10/26/11 09:48
6	EL.102611.095547	WG380255-05	Initial Calibration Verification		1		10/26/11 09:55
7	EL.102611.100253	WG380255-06	Initial Calib Blank		1		10/26/11 10:02
8	EL.102611.101001	WG380255-07	Low Level Initial Calibration V		1		10/26/11 10:10
9	EL.102611.101711	WG380255-08	Interference Check		1		10/26/11 10:17
10	EL.102611.102420	WG380255-09	Interference Check		1		10/26/11 10:24
11	EL.102611.103128	WG380255-10	CCV		1		10/26/11 10:31
12	EL.102611.103835	WG380255-11	CCB		1		10/26/11 10:38
13	EL.102611.104541	L11100011-29	IDL8-ICP-ELAN	40/100	1		10/26/11 10:45
14	EL.102611.105247	L11100011-30	IDL9-ICP-ELAN	40/100	1		10/26/11 10:52
15	EL.102611.105953	L11100011-31	IDL10-ICP-ELAN	40/100	1		10/26/11 10:59
16	EL.102611.110700	L11100011-32	IDL11-ICP-ELAN	40/100	1		10/26/11 11:07
17	EL.102611.111407	L11100011-33	IDL12-ICP-ELAN	40/100	1		10/26/11 11:14
18	EL.102611.112114	L11100011-34	IDL13-ICP-ELAN	40/100	1		10/26/11 11:21
19	EL.102611.112822	L11100011-35	IDL14-ICP-ELAN	40/100	1		10/26/11 11:28
20	EL.102611.113530	WG380255-12	CCV		1		10/26/11 11:35
21	EL.102611.114236	WG380255-13	CCB		1		10/26/11 11:42
22	EL.102611.114942	WG380176-03	Method/Prep Blank	40/100	1		10/26/11 11:49
23	EL.102611.115648	WG380118-01	Fluid Blank		1		10/26/11 11:56
24	EL.102611.120355	WG380176-05	Filter Blank		1		10/26/11 12:03
25	EL.102611.121102	WG380176-04	Laboratory Control S	40/100	1		10/26/11 12:11
26	EL.102611.121809	WG380176-01	Reference Sample		1	L11100770-07	10/26/11 12:18
27	EL.102611.122554	WG380176-01	Reference Sample		5	L11100770-07	10/26/11 12:25
28	EL.102611.123301	WG380176-06	Matrix Spike	40/100	5	L11100770-07	10/26/11 12:33
29	EL.102611.124009	WG380176-07	Matrix Spike Duplica	40/100	5	L11100770-07	10/26/11 12:40
30	EL.102611.124717	L11100808-02	SSP2770-SSP001	40/100	1		10/26/11 12:47
31	EL.102611.125425	WG380236-02	Serial Dilution		5	L11100808-02	10/26/11 12:54
32	EL.102611.130133	WG380255-14	CCV		1		10/26/11 13:01
33	EL.102611.130840	WG380255-15	CCB		1		10/26/11 13:08
34	EL.102611.131547	WG380236-01	Post Digestion Spike		1	L11100808-02	10/26/11 13:15

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Maren Beery



Microbac Laboratories Inc.
Instrument Run Log

Instrument: ELAN-ICP Dataset: 102611A.REP
 Analyst1: JYH Analyst2: N/A
 Method: 6020 SOP: ME700 Rev: 7
 Maintenance Log ID: 39437

Calibration Std: STD47983 ICV Std: STD48290 Post Spike: STD47984
 ICSA: STD47981 ICSAB: STD47901 Int. Std: STD48279
 CCV: STD48291 LLCCV: STD48186

380206,380236,380052,380105,379819,380000,379820,380194

Workgroups:

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
35	EL.102611.132256	L11100770-01	AAB3156	40/100	5		10/26/11 13:22
36	EL.102611.133003	L11100770-02	AAB3156	40/100	5		10/26/11 13:30
37	EL.102611.133709	L11100770-03	AAB3157	40/100	5		10/26/11 13:37
38	EL.102611.134415	L11100770-04	AAB3157	40/100	5		10/26/11 13:44
39	EL.102611.135121	L11100770-05	AAB3158	40/100	5		10/26/11 13:51
40	EL.102611.135827	L11100770-06	AAB3158	40/100	5		10/26/11 13:58
41	EL.102611.140534	L11100770-08	AAB3159	40/100	5		10/26/11 14:05
42	EL.102611.141241	L11100770-09	ER0049		5		10/26/11 14:12
43	EL.102611.141948	L11100850-01	OUTFALL 002/COMP	40/100	2		10/26/11 14:19
44	EL.102611.142656	WG380255-16	CCV		1		10/26/11 14:26
45	EL.102611.143403	WG380255-17	CCB		1		10/26/11 14:34
46	EL.102611.144454	L11100770-09	ER0049	40/100	1		10/26/11 14:44
47	EL.102611.145201	WG380255-18	Interference Check		1		10/26/11 14:52
48	EL.102611.145910	WG380255-19	Interference Check		1		10/26/11 14:59
49	EL.102611.150619	WG380255-20	CCV		1		10/26/11 15:06
50	EL.102611.151326	WG380255-21	CCB		1		10/26/11 15:13
51	EL.102611.152034	WG380255-22	Low Level Continuing Calibra		1		10/26/11 15:20
52	EL.102611.153230	WG380176-02	Reference Sample		5	L11100857-01	10/26/11 15:32
53	EL.102611.153938	WG380176-08	Matrix Spike	40/100	5	L11100857-01	10/26/11 15:39
54	EL.102611.154646	WG380176-09	Duplicate	40/100	5	L11100857-01	10/26/11 15:46
55	EL.102611.155354	L11100857-02	1101641-03	40/100	5		10/26/11 15:53
56	EL.102611.160101	L11100612-04	LTL-G-MWL2A-DIS	40/100	5		10/26/11 16:01
57	EL.102611.160808	WG380255-23	CCV		1		10/26/11 16:08
58	EL.102611.161515	WG380255-24	CCB		1		10/26/11 16:15
59	EL.102611.162222	WG379278-02	Method/Prep Blank	40/100	1		10/26/11 16:22
60	EL.102611.162930	WG379278-03	Laboratory Control S	40/100	1		10/26/11 16:29
61	EL.102611.163638	L11100432-01	MW-1	40/100	5		10/26/11 16:36
62	EL.102611.164346	WG379278-01	Reference Sample		5	L11100432-02	10/26/11 16:43
63	EL.102611.165052	WG379278-04	Matrix Spike	40/100	5	L11100432-02	10/26/11 16:50
64	EL.102611.165759	WG379278-05	Matrix Spike Duplica	40/100	5	L11100432-02	10/26/11 16:57
65	EL.102611.170505	L11100432-03	MW-3	40/100	5		10/26/11 17:05
66	EL.102611.171211	WG380105-01	Post Digestion Spike		5	L11100432-03	10/26/11 17:12
67	EL.102611.171918	WG380105-02	Serial Dilution		25	L11100432-03	10/26/11 17:19
68	EL.102611.172626	WG380255-25	CCV		1		10/26/11 17:26

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Maren Beery



Microbac Laboratories Inc.
Instrument Run Log

Instrument: ELAN-ICP Dataset: 102611A.REP
 Analyst1: JYH Analyst2: N/A
 Method: 6020 SOP: ME700 Rev: 7
 Maintenance Log ID: 39437

Calibration Std: STD47983 ICV Std: STD48290 Post Spike: STD47984
 ICSA: STD47981 ICSAB: STD47901 Int. Std: STD48279
 CCV: STD48291 LLCCV: STD48186

380206,380236,380052,380105,379819,380000,379820,380194

Workgroups:

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
69	EL.102611.173332	WG380255-26	CCB		1		10/26/11 17:33
70	EL.102611.174039	L11100432-04	MW-4	40/100	5		10/26/11 17:40
71	EL.102611.174746	L11100432-05	MW-5	40/100	5		10/26/11 17:47
72	EL.102611.175454	L11100432-06	MW-5 DUP	40/100	5		10/26/11 17:54
73	EL.102611.180202	L11100432-07	LS-1	40/100	5		10/26/11 18:02
74	EL.102611.180910	L11100434-58	EB-SOIL-10112011	40/100	1		10/26/11 18:09
75	EL.102611.181618	L11100435-03	TAC015-MW1014S-W-1	40/100	5		10/26/11 18:16
76	EL.102611.182326	L11100435-04	TAC016-MW1011S-W-1	40/100	5		10/26/11 18:23
77	EL.102611.183033	L11100441-08	FB001 (101011)	40/100	1		10/26/11 18:30
78	EL.102611.183740	L11100441-16	FB002(0.101111)	40/100	1		10/26/11 18:37
79	EL.102611.184446	L11100441-21	FB003(101211)	40/100	1		10/26/11 18:44
80	EL.102611.185154	WG380255-27	CCV		1		10/26/11 18:51
81	EL.102611.185901	WG380255-28	CCB		1		10/26/11 18:59
82	EL.102611.190607	L11100441-22	C-34SW008(101211)	40/100	1		10/26/11 19:06
83	EL.102611.191314	L11100454-01	EASTERN DRAINAGE DITC	40/100	1		10/26/11 19:13
84	EL.102611.192021	L11100454-02	EASTERN DRAINAGE DITC	40/100	1		10/26/11 19:20
85	EL.102611.192729	WG380255-29	Interference Check		1		10/26/11 19:27
86	EL.102611.193438	WG380255-30	Interference Check		1		10/26/11 19:34
87	EL.102611.194146	WG380255-31	CCV		1		10/26/11 19:41
88	EL.102611.194853	WG380255-32	CCB		1		10/26/11 19:48
89	EL.102611.195600	WG379720-03	Method/Prep Blank	40/100	1		10/26/11 19:56
90	EL.102611.200308	WG379720-04	Laboratory Control S	40/100	1		10/26/11 20:03
91	EL.102611.201015	WG379720-02	Reference Sample		5	L11100616-02	10/26/11 20:10
92	EL.102611.201724	WG379720-07	Matrix Spike	40/100	5	L11100616-02	10/26/11 20:17
93	EL.102611.202432	WG379720-08	Matrix Spike Duplica	40/100	5	L11100616-02	10/26/11 20:24
94	EL.102611.203140	L11100643-01	OUTFALL003-111018	40/100	1		10/26/11 20:31
95	EL.102611.203847	L11100643-02	OUTFALL001-111018	40/100	1		10/26/11 20:38
96	EL.102611.204554	WG379819-03	Post Digestion Spike		1	L11100643-02	10/26/11 20:45
97	EL.102611.205301	WG379819-04	Serial Dilution		5	L11100643-02	10/26/11 20:53
98	EL.102611.210009	WG380255-33	CCV		1		10/26/11 21:00
99	EL.102611.210716	WG380255-34	CCB		1		10/26/11 21:07
100	EL.102611.211422	WG379873-02	Method/Prep Blank	.5/200	1		10/26/11 21:14
101	EL.102611.212129	WG379873-03	Laboratory Control S	.5/200	1		10/26/11 21:21
102	EL.102611.212836	WG379873-01	Reference Sample		5	L11100763-03	10/26/11 21:28

Page: 3 Approved: October 27, 2011

Maren Beery



Microbac Laboratories Inc.
Instrument Run Log

Instrument: ELAN-ICP Dataset: 102611A.REP
 Analyst1: JYH Analyst2: N/A
 Method: 6020 SOP: ME700 Rev: 7
 Maintenance Log ID: 39437

Calibration Std: STD47983 ICV Std: STD48290 Post Spike: STD47984
 ICSA: STD47981 ICSAB: STD47901 Int. Std: STD48279
 CCV: STD48291 LLCCV: STD48186

380206,380236,380052,380105,379819,380000,379820,380194

Workgroups:

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
103	EL.102611.213543	WG379873-04	Matrix Spike	.5/200	5	L11100763-03	10/26/11 21:35
104	EL.102611.214251	WG379873-05	Matrix Spike Duplica	.5/200	5	L11100763-03	10/26/11 21:42
105	EL.102611.214959	L11100593-01	BORROW 1 - COVER		5		10/26/11 21:49
106	EL.102611.215707	WG380000-01	Post Digestion Spike		5	L11100593-01	10/26/11 21:57
107	EL.102611.220416	WG380000-02	Serial Dilution		25	L11100593-01	10/26/11 22:04
108	EL.102611.221124	WG380255-35	CCV		1		10/26/11 22:11
109	EL.102611.221831	WG380255-36	CCB		1		10/26/11 22:18
110	EL.102611.222537	L11100414-01	EB-GW-10122011		1		10/26/11 22:25
111	EL.102611.223245	L11100414-02	EB-GW-10122011	40/100	1		10/26/11 22:32
112	EL.102611.223952	L11100656-01	KI-MW-7	40/100	50		10/26/11 22:39
113	EL.102611.224659	L11100656-02	KI-MW-7	40/100	50		10/26/11 22:46
114	EL.102611.225407	WG380255-37	Interference Check		1		10/26/11 22:54
115	EL.102611.230116	WG380255-38	Interference Check		1		10/26/11 23:01
116	EL.102611.230825	WG380255-39	CCV		1		10/26/11 23:08
117	EL.102611.231532	WG380255-40	CCB		1		10/26/11 23:15
118	EL.102611.232240	WG380255-41	Low Level Continuing Calibra		1		10/26/11 23:22
119	EL.102611.232949	WG380013-01	Method/Prep Blank	40/100	1		10/26/11 23:29
120	EL.102611.233656	WG380013-02	Laboratory Control S	40/100	1		10/26/11 23:36
121	EL.102611.234403	WG380013-03	Laboratory Control S	40/100	1		10/26/11 23:44
122	EL.102611.235111	L11100686-01	1101343-01	40/100	10		10/26/11 23:51
123	EL.102611.235818	L11100686-02	1101343-02	40/100	10		10/26/11 23:58
124	EL.102711.000526	L11100686-03	1101343-03	40/100	10		10/27/11 00:05
125	EL.102711.001235	L11100686-04	1101343-04	40/100	10		10/27/11 00:12
126	EL.102711.001943	WG380194-01	Post Digestion Spike		10	L11100794-06	10/27/11 00:19
127	EL.102711.002651	WG380194-02	Serial Dilution		50	L11100794-06	10/27/11 00:26
128	EL.102711.003359	WG380255-42	CCV		1		10/27/11 00:33
129	EL.102711.004106	WG380255-43	CCB		1		10/27/11 00:41
130	EL.102711.004813	L11100686-05	1101343-05	40/100	10		10/27/11 00:48
131	EL.102711.005520	L11100686-06	1101343-06	40/100	10		10/27/11 00:55
132	EL.102711.010228	L11100686-07	1101343-07	40/100	10		10/27/11 01:02
133	EL.102711.010935	L11100686-08	1101343-08	40/100	10		10/27/11 01:09
134	EL.102711.011643	L11100686-09	1101343-09	40/100	10		10/27/11 01:16
135	EL.102711.012351	L11100686-10	1101343-10	40/100	10		10/27/11 01:23
136	EL.102711.013058	L11100686-11	1101343-11	40/100	10		10/27/11 01:30

Page: 4 Approved: October 27, 2011

Maren Beery



Microbac Laboratories Inc.

Instrument Run Log

Instrument: ELAN-ICP Dataset: 102611A.REP
 Analyst1: JYH Analyst2: N/A
 Method: 6020 SOP: ME700 Rev: 7
 Maintenance Log ID: 39437

Calibration Std: STD47983 ICV Std: STD48290 Post Spike: STD47984
 ICSA: STD47981 ICSAB: STD47901 Int. Std: STD48279
 CCV: STD48291 LLCCV: STD48186

380206,380236,380052,380105,379819,380000,379820,380194

Workgroups:

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
137	EL.102711.013806	L11100794-01	1101531-01	40/100	10		10/27/11 01:38
138	EL.102711.014514	L11100794-02	1101531-02	40/100	10		10/27/11 01:45
139	EL.102711.015222	L11100794-03	1101531-03	40/100	10		10/27/11 01:52
140	EL.102711.015930	WG380255-44	CCV		1		10/27/11 01:59
141	EL.102711.020637	WG380255-45	CCB		1		10/27/11 02:06
142	EL.102711.021344	L11100794-04	1101531-04		10		10/27/11 02:13
143	EL.102711.022053	L11100794-05	1101531-05		10		10/27/11 02:20
144	EL.102711.022801	L11100794-06	1101531-06		10		10/27/11 02:28
145	EL.102711.023509	WG380255-46	QC Std 6		1		10/27/11 02:35
146	EL.102711.024215	WG380255-47	QC Std 7		1		10/27/11 02:42
147	EL.102711.090726	L11100818-02	CA-MW-03A		1		10/27/11 09:07
148	EL.102711.091501	L11100818-02	CA-MW-03A		1		10/27/11 09:15

Page: 5 Approved: October 27, 2011

Maren Beery



Microbac Laboratories Inc.

Data Checklist

Date: 26-OCT-2011
 Analyst: JYH
 Analyst: NA
 Method: 6020
 Instrument: ELAN-ICP
 Curve Workgroup: 380255
 Runlog ID: 43429
 Analytical Workgroups: 380206,380236,380052,380105,379819,380000,379820,380194

Additional Workgroup	X
Calibration/Linearity	X
ICV/CCV	X
ICB/CCB	X
ICSA/ICSAB	X
CRI	
Blank/LCS	X
MS/MSD	X
Post Spike/Serial Dilution	X
Upload Results	X
Data Qualifiers	X
Generate PDF Instrument Data	X
Sign/Annotate PDF Data	X
Upload Curve Data	X
Workgroup Forms	X
Case Narrative	770,808,850,857,432,434,435,441 454,414,686
Client Forms	X
Level X	432
Level 3	643
Level 4	770,808,434,435,441,454,656,414,
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Primary Reviewer	JYH
Secondary Reviewer	MMB
Comments	

Primary Reviewer:

Secondary Reviewer:
27-OCT-2011



Microbac Laboratories Inc.
HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method:6020
Login Number:L11100434

AAB#:WG380105

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
EB-SOIL-10112011	58	10/11/11					10/18/11	6.5	180		10/26/11	15	180	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 2196719
Report generated 10/27/2011 09:48



METHOD BLANK SUMMARY

Login Number: L11100434 Work Group: WG380105
 Blank File ID: EL.102611.162222 Blank Sample ID: WG379278-02
 Prep Date: 10/18/11 06:38 Instrument ID: ELAN-ICP
 Analyzed Date: 10/26/11 16:22 Method: 6020
 Analyst: JYH

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG379278-03	EL.102611.162930	10/26/11 16:29	01
EB-SOIL-10112011	L11100434-58	EL.102611.180910	10/26/11 18:09	01

Report Name: BLANK_SUMMARY
 PDF File ID: 2197111
 Report generated 10/27/2011 10:26



Microbac Laboratories Inc.
METHOD BLANK REPORT

Login Number: L11100434 Prep Date: 10/18/11 06:38 Sample ID: WG379278-02
Instrument ID: ELAN-ICP Run Date: 10/26/11 16:22 Prep Method: 3015
File ID: EL.102611.162222 Analyst: JYH Method: 6020
Workgroup (AAB#): WG380105 Matrix: Water Units: mg/L
Contract #: _____ Cal ID: ELAN-I-26-OCT-11

Analytes	MDL	RL	Concentration	Dilution	Qualifier
Arsenic, Total	0.000500	0.00100	0.000500	1	U
Cadmium, Total	0.000300	0.000600	0.000300	1	U

MDL Method Detection Limit
RL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name: BLANK
PDF ID: 2197112
27-OCT-2011 10:26



Microbac Laboratories Inc.
 LABORATORY CONTROL SAMPLE (LCS)

Login Number: L11100434 Run Date: 10/26/2011 Sample ID: WG379278-03
 Instrument ID: ELAN-ICP Run Time: 16:29 Prep Method: 3015
 File ID: EL.102611.162930 Analyst: JYH Method: 6020
 Workgroup (AAB#): WG380105 Matrix: Water Units: mg/L
 QC Key: WATERLOO Lot#: STD47574 Cal ID: ELAN-I-26-OCT-11

Analytes	Expected	Found	% Rec	LCS Limits	Q
Arsenic, Total	0.0625	0.0614	98.2	80 - 120	
Cadmium, Total	0.0625	0.0635	102	80 - 120	

LCS - Modified 03/06/2008
 PDF File ID: 2197113
 Report generated: 10/27/2011 10:26



MATRIX SPIKE AND MATRIX SPIKE DUP (MS/MSD)

Loginnum: L11100434 Cal ID: ELAN-ICP- Worknum: WG380105
 Instrument ID: ELAN-ICP Contract #: _____ Method: 6020
 Parent ID: WG379278-01 File ID: EL.102611.164346 Dil: 5 Matrix: WATER
 Sample ID: WG379278-04 MS File ID: EL.102611.165052 Dil: 5 Units: mg/L
 Sample ID: WG379278-05 MSD File ID: EL.102611.165759 Dil: 5

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Arsenic, Total	ND	0.0625	0.0679	109	0.0625	0.0693	111	1.96	80 - 120	20	
Cadmium, Total	ND	0.0625	0.0686	110	0.0625	0.0685	110	0.146	80 - 120	20	

* FAILS %REC LIMIT

FAILS RPD LIMIT

NOTE: This is an internal quality control sample.

Microbac Laboratories Inc.
Serial Dilution Report

Login: L11100434 Worknum: WG380105
Instrument: ELAN-ICP Method: 6020
Serial Dil: WG380105-02 File ID: EL.102611.171918 Dil: 25 Units: ug/L
Sample: L11100432-03 File ID: EL.102611.170505 Dil: 5

Analyte	Sample	Qual	Serial Dil	Qual	% Diff	Q
Arsenic	ND	U	ND	U		
Cadmium	ND	U	ND	U		

U = Result is below MDL.
F = Result is greater than or equal to MDL and less than the RL.
X = Result is greater than or equal to RL and less than 100 times the MDL.
E = %D exceeds control limit of 10% and initial sample result is greater than or equal to 100 times the MDL.



Microbac Laboratories Inc.
POST SPIKE REPORT

Sample Login ID: L11100434 Worknum: WG380105
 Instrument ID: ELAN-ICP Method: 6020
 Post Spike ID: WG380105-01 File ID: EL.102611.171211 Dil: 5 Units: ug/L
 Sample ID: L11100432-03 File ID: EL.102611.170505 Dil: 5 Matrix: Water

Analyte	Post Spike Result	C	Sample Result	C	Spike Added(SA)	% R	Control Limit %R	Q
ARSENIC	50.3		0	U	50	100.5	75 - 125	
CADMIUM	52.6		0	U	50	105.3	75 - 125	

N = % Recovery exceeds control limits
 F = Result is between MDL and RL
 U = Sample result is below MDL. A value of zero is used in the calculation

POST_SPIKE - Modified 03/06/2008
 PDF File ID: 2196718
 Report generated: 10/27/2011 10:26



Microbac Laboratories Inc.
Initial Calibration Summary

Login: L11100434 Workgroup (AAB#): WG380105
 Analytical Method: 6020 Instrument ID: ELAN-ICP
 ICAL Worknum: WG380255 Initial Calibration Date: 26-OCT-2011 09:48

	WG380255-01		WG380255-02		WG380255-03		WG380255-04		R	Q
	Conc	INT	Conc	INT	Conc	INT	Conc	INT		
ARSENIC	0	-258	.4	334	50	72200	100	148000	.999998	
CADMIUM	0	5.32	.4	608	50	71000	100	146000	1	

INT = Instrument intensity
 R = Coefficient of correlation
 Q = Data Qualifier
 * = Out of Compliance; R < 0.995



Microbac Laboratories Inc.
INITIAL CALIBRATION BLANK (ICB)

Login Number: L11100434 Run Date: 10/26/2011 Sample ID: WG380255-06
Instrument ID: ELAN-ICP Run Time: 10:02 Method: 6020
File ID: EL.102611.100253 Analyst: JYH Units: ug/L
Workgroup (AAB#): WG380105 Cal ID: ELAN-ICP - 26-OCT-11
Matrix: WATER

Analytes	MDL	RDL	Concentration	Qualifier
ARSENIC	.2	.4	.2	U
CADMIUM	.12	.24	.12	U

ICB - Modified 07/14/2009
PDF File ID: 2209197
Report generated 11/06/2011 09:31



Microbac Laboratories Inc.
CONTINUING CALIBRATION BLANK (CCB)

Login Number: L11100434 Run Date: 10/26/2011 Sample ID: WG380255-11
Instrument ID: ELAN-ICP Run Time: 10:38 Method: 6020
File ID: EL.102611.103835 Analyst: JYH Units: ug/L
Workgroup (AAB#): WG380105 Cal ID: ELAN-I - 26-OCT-11
Matrix: WATER QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.200	0.400	0.200	U
Cadmium	0.120	0.240	0.120	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 2209200
Report generated 11/06/2011 09:32



Microbac Laboratories Inc.
CONTINUING CALIBRATION BLANK (CCB)

Login Number: L11100434 Run Date: 10/26/2011 Sample ID: WG380255-17
Instrument ID: ELAN-ICP Run Time: 14:34 Method: 6020
File ID: EL.102611.143403 Analyst: JYH Units: ug/L
Workgroup (AAB#): WG380105 Cal ID: ELAN-I - 26-OCT-11
Matrix: WATER QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.200	0.400	0.200	U
Cadmium	0.120	0.240	0.120	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 2209200
Report generated 11/06/2011 09:32



Microbac Laboratories Inc.
CONTINUING CALIBRATION BLANK (CCB)

Login Number: L11100434 Run Date: 10/26/2011 Sample ID: WG380255-21
Instrument ID: ELAN-ICP Run Time: 15:13 Method: 6020
File ID: EL.102611.151326 Analyst: JYH Units: ug/L
Workgroup (AAB#): WG380105 Cal ID: ELAN-I - 26-OCT-11
Matrix: WATER QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.200	0.400	0.200	U
Cadmium	0.120	0.240	0.120	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 2209200
Report generated 11/06/2011 09:32



Microbac Laboratories Inc.
CONTINUING CALIBRATION BLANK (CCB)

Login Number: L11100434 Run Date: 10/26/2011 Sample ID: WG380255-24
Instrument ID: ELAN-ICP Run Time: 16:15 Method: 6020
File ID: EL.102611.161515 Analyst: JYH Units: ug/L
Workgroup (AAB#): WG380105 Cal ID: ELAN-I - 26-OCT-11
Matrix: WATER QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.200	0.400	0.200	U
Cadmium	0.120	0.240	0.120	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 2209200
Report generated 11/06/2011 09:32



Microbac Laboratories Inc.
CONTINUING CALIBRATION BLANK (CCB)

Login Number: L11100434 Run Date: 10/26/2011 Sample ID: WG380255-26
Instrument ID: ELAN-ICP Run Time: 17:33 Method: 6020
File ID: EL.102611.173332 Analyst: JYH Units: ug/L
Workgroup (AAB#): WG380105 Cal ID: ELAN-I - 26-OCT-11
Matrix: WATER QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.200	0.400	0.200	U
Cadmium	0.120	0.240	0.120	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 2209200
Report generated 11/06/2011 09:32



Microbac Laboratories Inc.
CONTINUING CALIBRATION BLANK (CCB)

Login Number: L11100434 Run Date: 10/26/2011 Sample ID: WG380255-28
Instrument ID: ELAN-ICP Run Time: 18:59 Method: 6020
File ID: EL.102611.185901 Analyst: JYH Units: ug/L
Workgroup (AAB#): WG380105 Cal ID: ELAN-I - 26-OCT-11
Matrix: WATER QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.200	0.400	0.200	U
Cadmium	0.120	0.240	0.120	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 2209200
Report generated 11/06/2011 09:32



Microbac Laboratories Inc.
CONTINUING CALIBRATION BLANK (CCB)

Login Number: L11100434 Run Date: 10/26/2011 Sample ID: WG380255-32
Instrument ID: ELAN-ICP Run Time: 19:48 Method: 6020
File ID: EL.102611.194853 Analyst: JYH Units: ug/L
Workgroup (AAB#): WG380105 Cal ID: ELAN-I - 26-OCT-11
Matrix: WATER QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.200	0.400	0.200	U
Cadmium	0.120	0.240	0.120	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 2209200
Report generated 11/06/2011 09:32



Microbac Laboratories Inc.
INITIAL CALIBRATION VERIFICATION (ICV)
(Alternate Source)

Login Number: L11100434 Run Date: 10/26/2011 Sample ID: WG380255-05
Instrument ID: ELAN-ICP Run Time: 09:55 Method: 6020
File ID: EL.102611.095547 Analyst: JYH Units: ug/L
Workgroup (AAB#): WG380105 Cal ID: ELAN-I - 26-OCT-11
QC Key: WATERLOO

Analyte	Expected	Found	%REC	LIMITS	Q
Arsenic	50	50.0	99.9	90 - 110	
Cadmium	50	49.9	99.8	90 - 110	

* Exceeds LIMITS Limit

ICV - Modified 03/06/2008
PDF File ID: 2209196
Report generated 11/06/2011 09:31



Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11100434 Run Date: 10/26/2011 Sample ID: WG380255-10
 Instrument ID: ELAN-ICP Run Time: 10:31 Method: 6020
 File ID: EL.102611.103128 Analyst: JYH QC Key: WATERLOO
 Workgroup (AAB#): WG380105 Cal ID: ELAN-I - 26-OCT-11
 Matrix: WATER

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	50.0	51.2	ug/L	102	90 - 110	
Cadmium	50.0	51.5	ug/L	103	90 - 110	

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
 PDF File ID: 2209199
 Report generated 11/06/2011 09:31



Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11100434 Run Date: 10/26/2011 Sample ID: WG380255-16
Instrument ID: ELAN-ICP Run Time: 14:26 Method: 6020
File ID: EL.102611.142656 Analyst: JYH QC Key: WATERLOO
Workgroup (AAB#): WG380105 Cal ID: ELAN-I - 26-OCT-11
Matrix: WATER

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	50.0	50.3	ug/L	101	90 - 110	
Cadmium	50.0	52.7	ug/L	105	90 - 110	

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
PDF File ID: 2209199
Report generated 11/06/2011 09:31



Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11100434 Run Date: 10/26/2011 Sample ID: WG380255-20
 Instrument ID: ELAN-ICP Run Time: 15:06 Method: 6020
 File ID: EL.102611.150619 Analyst: JYH QC Key: WATERLOO
 Workgroup (AAB#): WG380105 Cal ID: ELAN-I - 26-OCT-11
 Matrix: WATER

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	50.0	49.6	ug/L	99.3	90 - 110	
Cadmium	50.0	52.1	ug/L	104	90 - 110	

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
 PDF File ID: 2209199
 Report generated 11/06/2011 09:31



Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11100434 Run Date: 10/26/2011 Sample ID: WG380255-23
Instrument ID: ELAN-ICP Run Time: 16:08 Method: 6020
File ID: EL.102611.160808 Analyst: JYH QC Key: WATERLOO
Workgroup (AAB#): WG380105 Cal ID: ELAN-I - 26-OCT-11
Matrix: WATER

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	50.0	49.1	ug/L	98.2	90 - 110	
Cadmium	50.0	52.1	ug/L	104	90 - 110	

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
PDF File ID: 2209199
Report generated 11/06/2011 09:31



Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11100434 Run Date: 10/26/2011 Sample ID: WG380255-25
 Instrument ID: ELAN-ICP Run Time: 17:26 Method: 6020
 File ID: EL.102611.172626 Analyst: JYH QC Key: WATERLOO
 Workgroup (AAB#): WG380105 Cal ID: ELAN-I - 26-OCT-11
 Matrix: WATER

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	50.0	49.7	ug/L	99.5	90 - 110	
Cadmium	50.0	49.1	ug/L	98.1	90 - 110	

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
 PDF File ID: 2209199
 Report generated 11/06/2011 09:31



Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11100434 Run Date: 10/26/2011 Sample ID: WG380255-27
Instrument ID: ELAN-ICP Run Time: 18:51 Method: 6020
File ID: EL.102611.185154 Analyst: JYH QC Key: WATERLOO
Workgroup (AAB#): WG380105 Cal ID: ELAN-I - 26-OCT-11
Matrix: WATER

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	50.0	50.3	ug/L	101	90 - 110	
Cadmium	50.0	51.2	ug/L	102	90 - 110	

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
PDF File ID: 2209199
Report generated 11/06/2011 09:31



Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11100434 Run Date: 10/26/2011 Sample ID: WG380255-31
 Instrument ID: ELAN-ICP Run Time: 19:41 Method: 6020
 File ID: EL.102611.194146 Analyst: JYH QC Key: WATERLOO
 Workgroup (AAB#): WG380105 Cal ID: ELAN-I - 26-OCT-11
 Matrix: WATER

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	50.0	48.4	ug/L	96.7	90 - 110	
Cadmium	50.0	50.7	ug/L	101	90 - 110	

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
 PDF File ID: 2209199
 Report generated 11/06/2011 09:31



Microbac Laboratories Inc.
LOW LEVEL CALIBRATION VERIFICATION

Login Number: L11100434 Run Date: 10/26/2011 Sample ID: WG380255-07
 Instrument ID: ELAN-ICP Run Time: 10:10 Method: 6020
 File ID: EL.102611.101001 Analyst: JYH QC Key: WATERLOO
 Workgroup (AAB#): WG380105 Cal ID: ELAN-I - 26-OCT-11
 Matrix: WATER

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.421	ug/L	105	50 - 150	
Cadmium	0.200	0.198	ug/L	98.8	50 - 150	

* Exceeds LIMITS Criteria

LLCCV - Modified 1/7/2010
 PDF File ID: 2197120
 Report generated 10/27/2011 10:27



Microbac Laboratories Inc.
 LOW LEVEL CALIBRATION VERIFICATION

Login Number: L11100434 Run Date: 10/26/2011 Sample ID: WG380255-22
 Instrument ID: ELAN-ICP Run Time: 15:20 Method: 6020
 File ID: EL.102611.152034 Analyst: JYH QC Key: WATERLOO
 Workgroup (AAB#): WG380105 Cal ID: ELAN-I - 26-OCT-11
 Matrix: WATER

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.334	ug/L	83.6	50 - 150	
Cadmium	0.200	0.198	ug/L	98.9	50 - 150	

* Exceeds LIMITS Criteria



Microbac Laboratories Inc.
LOW LEVEL CALIBRATION VERIFICATION

Login Number: L11100434 Run Date: 10/26/2011 Sample ID: WG380255-41
Instrument ID: ELAN-ICP Run Time: 23:22 Method: 6020
File ID: EL.102611.232240 Analyst: JYH QC Key: WATERLOO
Workgroup (AAB#): WG380105 Cal ID: ELAN-I - 26-OCT-11
Matrix: WATER

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.319	ug/L	79.8	50 - 150	
Cadmium	0.200	0.161	ug/L	80.3	50 - 150	

* Exceeds LIMITS Criteria

LLCCV - Modified 1/7/2010
PDF File ID: 2197120
Report generated 10/27/2011 10:27



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11100434
Instrument ID: ELAN-ICP
Sol. A : WG380255-08
Sol. AB : WG380255-09

File ID: EL.102611.101711
File ID: EL.102611.102420

Workgroup (AAB#): WG380105
Method: 6020
Units: ug/L
Matrix: Water

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.00910	NS	100	103	103	
Cadmium	NS	0.0750	NS	100	108	108	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11100434
Instrument ID: ELAN-ICP
Sol. A : WG380255-18
Sol. AB : WG380255-19

File ID: EL.102611.145201
File ID: EL.102611.145910

Workgroup (AAB#): WG380105
Method: 6020
Units: ug/L
Matrix: Water

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.0227	NS	100	99.2	99.2	
Cadmium	NS	0.0930	NS	100	106	106	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11100434
Instrument ID: ELAN-ICP
Sol. A : WG380255-29
Sol. AB : WG380255-30

File ID: EL.102611.192729
File ID: EL.102611.193438

Workgroup (AAB#): WG380105
Method: 6020
Units: ug/L
Matrix: Water

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	0.00900	NS	100	97.4	97.4	
Cadmium	NS	0.0698	NS	100	103	103	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.

INTERNAL STANDARD REPORT

Login: L11100434 Analytical Method: 6020
 Analytical Workgroup: WG380105 Matrix: 1
 Instrument: ELAN-ICP Analyst: JYH
 ICAL Date: 26-OCT-2011 09:27

Sample	Type	Run Date	BISMUTH	GERMANIUM	INDIUM	TERBIUM
			% Rec	% Rec	% Rec	% Rec
L11100432-03	SAMP	26-OCT-2011 17:05	107.846	101.411	94.884	109.162
L11100434-58	SAMP	26-OCT-2011 18:09	116.467	110.931	102.09	<u>121.865</u>
WG379278-02	BLANK	26-OCT-2011 16:22	103.975	95.543	90.232	104.258
WG379278-03	LCS	26-OCT-2011 16:29	105.914	97.192	92.818	102.516
WG380105-01	PSPK	26-OCT-2011 17:12	100.438	92.511	87.573	100.312
WG380105-02	SERIAL	26-OCT-2011 17:19	108.525	99.387	92.185	107.813
WG380255-05	ICV	26-OCT-2011 09:55	96.952	97.819	95.103	97.898
WG380255-06	ICB	26-OCT-2011 10:02	99.651	98.959	96.472	98.434
WG380255-07	LLICV	26-OCT-2011 10:10	98.936	96.645	96.436	98.611
WG380255-08	ICS	26-OCT-2011 10:17	93.844	93.975	89.601	95.005
WG380255-09	ICS	26-OCT-2011 10:24	97.783	89.862	83.917	96.494
WG380255-10	CCV	26-OCT-2011 10:31	97.928	93.856	89.688	95.33
WG380255-11	CCB	26-OCT-2011 10:38	100.371	96.848	92.599	99.576
WG380255-16	CCV	26-OCT-2011 14:26	99.417	92.835	87.003	98.376
WG380255-17	CCB	26-OCT-2011 14:34	101.236	93.042	88.562	101.892
WG380255-18	ICS	26-OCT-2011 14:52	94.763	86.57	81.291	94.649
WG380255-19	ICS	26-OCT-2011 14:59	91.849	82.402	78.221	94.35
WG380255-20	CCV	26-OCT-2011 15:06	102.583	93.046	87.769	100.449
WG380255-21	CCB	26-OCT-2011 15:13	102.511	91.844	86.999	99.769
WG380255-22	LLCCV	26-OCT-2011 15:20	101.935	92.015	86.072	98.752
WG380255-23	CCV	26-OCT-2011 16:08	101.063	93.999	88.555	100.383
WG380255-24	CCB	26-OCT-2011 16:15	104.061	96.684	91.595	104.944
WG380255-25	CCV	26-OCT-2011 17:26	107.232	101.403	94.096	109.549
WG380255-26	CCB	26-OCT-2011 17:33	107.941	98.869	94.582	106.215
WG380255-27	CCV	26-OCT-2011 18:51	119.612	112.901	105.674	119.443
WG380255-28	CCB	26-OCT-2011 18:59	<u>122.15</u>	112.053	105.011	<u>122.475</u>
WG380255-29	ICS	26-OCT-2011 19:27	109.434	102.479	93.352	110.193
WG380255-30	ICS	26-OCT-2011 19:34	105.823	97.422	91.701	114.782
WG380255-31	CCV	26-OCT-2011 19:41	<u>121.474</u>	110.905	103.064	<u>123.321</u>
WG380255-32	CCB	26-OCT-2011 19:48	<u>121.297</u>	109.269	103.061	<u>123.819</u>
WG380255-35	CCV	26-OCT-2011 22:11	117.891	113.715	104.634	116.214
WG380255-36	CCB	26-OCT-2011 22:18	<u>121.641</u>	114.681	105.744	119.169
WG380255-37	ICS	26-OCT-2011 22:54	117.641	112.405	102.461	<u>120.633</u>
WG380255-38	ICS	26-OCT-2011 23:01	111.282	101.304	94.898	116.824
WG380255-39	CCV	26-OCT-2011 23:08	<u>120.948</u>	112.86	104.133	<u>123.722</u>
WG380255-40	CCB	26-OCT-2011 23:15	<u>126.017</u>	116.276	107.671	<u>126.921</u>
WG380255-41	LLCCV	26-OCT-2011 23:22	<u>124.558</u>	112.528	106.239	<u>125.198</u>

Acceptance criteria: 30% - 120% Underlined recoveries are out of range
 Acceptance criteria for CCVs and CCBs for method SW846-6020: 80% - 120%

INT_STD_ICPMS - Modified 07/28/2010
 PDF File ID: 2197115
 Report generated: 10/27/2011 10:26



Microbac Laboratories Inc.
LINEAR RANGE (QUARTERLY)

Login Number: L11100434 Date: 10/03/2011
Insturment ID: ELAN-ICP Method: 6020

Analyte	Integration Time (Sec.)	Concentration (ug/L)
Antimony	1.00	100.0
Arsenic	1.00	100.0
Barium	1.00	100.0
Cadmium	1.00	100.0
Chromium	1.00	100.0
Cobalt	1.00	100.0
Copper	1.00	100.0
Lead	1.00	100.0
Manganese	1.00	100.0
Nickel	1.00	100.0
Selenium	1.00	100.0
Silver	1.00	100.0
Thallium	1.00	100.0
Uranium	1.00	100.0
Vanadium	1.00	100.0
Zinc	1.00	100.0

Comments:

All analytes passed acceptance criteria at the specified concentration.



2.2 General Chemistry Data

2.2.1 Percent Solids Data

2.2.1.1 Raw Data

LABORATORY REPORT

L11100434

11/08/11 11:19

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta, OH 45750
(740) 373-4071

For

Account Name: CH2MHILL, Inc
CH2MHILL
1034 S. Brentwood Blvd, Suite 2300
Richmond Heights, MO 63117
Attention: Shane Lowe

Project Number: 2736.103
Project: DOW WATERLOO Soil & GW
Site: WATERLOO
Invoice Number: 621118
P.O. Number: 416903-1

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
DE-30A-10102011	L11100434-01	D2216-90	1	13-OCT-11
DE-30B-10102011	L11100434-02	D2216-90	1	13-OCT-11
DE-30C-10102011	L11100434-03	D2216-90	1	13-OCT-11
DE-30D-10102011	L11100434-04	D2216-90	1	13-OCT-11
DE-30E-10102011	L11100434-05	D2216-90	1	13-OCT-11
DE-30F-10102011	L11100434-06	D2216-90	1	13-OCT-11
DE-30G-10102011	L11100434-07	D2216-90	1	13-OCT-11
DE-31A-10102011	L11100434-08	D2216-90	1	13-OCT-11
DE-31B-10102011	L11100434-09	D2216-90	1	13-OCT-11
DE-31C-10102011	L11100434-10	D2216-90	1	13-OCT-11
DE-31D-10102011	L11100434-11	D2216-90	1	13-OCT-11
DE-31E-10102011	L11100434-12	D2216-90	1	13-OCT-11
DE-31F-10102011	L11100434-13	D2216-90	1	13-OCT-11
DE-31G-10102011	L11100434-14	D2216-90	1	13-OCT-11
DE-31G-10102011MS	L11100434-15	D2216-90	1	13-OCT-11
DE-31G-10102011MSD	L11100434-16	D2216-90	1	13-OCT-11
DE-32A-10102011	L11100434-17	D2216-90	1	13-OCT-11
DE-32B-10102011	L11100434-18	D2216-90	1	13-OCT-11
DE-32C-10102011	L11100434-19	D2216-90	1	13-OCT-11
DE-32D-10102011	L11100434-20	D2216-90	1	13-OCT-11
DE-32D-10102011MS	L11100434-21	D2216-90	1	13-OCT-11
DE-32D-10102011MSD	L11100434-22	D2216-90	1	13-OCT-11
DE-32E-10102011	L11100434-23	D2216-90	1	13-OCT-11
DE-33A-10102011	L11100434-24	D2216-90	1	13-OCT-11
DE-33B-10102011	L11100434-25	D2216-90	1	13-OCT-11
DE-33C-10102011	L11100434-26	D2216-90	1	13-OCT-11
DE-33D-10102011	L11100434-27	D2216-90	1	13-OCT-11
DE-33E-10102011	L11100434-28	D2216-90	1	13-OCT-11

L1_A_PROD - Modified 03/06/2008
PDF File ID: 2212067
Report generated: 11/08/2011 11:19

1 OF 2



LABORATORY REPORT

L11100434

11/08/11 11:19

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
DE-33F-10102011	L11100434-29	D2216-90	1	13-OCT-11
DE-33G-10102011	L11100434-30	D2216-90	1	13-OCT-11
DUP-SOIL-10102011-01	L11100434-31	D2216-90	1	13-OCT-11
DUP-SOIL-10102011-02	L11100434-32	D2216-90	1	13-OCT-11
DE-29A-10112011	L11100434-33	D2216-90	1	13-OCT-11
DE-29B-10112011	L11100434-34	D2216-90	1	13-OCT-11
DE-29C-10112011	L11100434-35	D2216-90	1	13-OCT-11
DE-29D-10112011	L11100434-36	D2216-90	1	13-OCT-11
DE-29E-10112011	L11100434-37	D2216-90	1	13-OCT-11
DE-29E-10112011MS	L11100434-38	D2216-90	1	13-OCT-11
DE-29E-10112011MSD	L11100434-39	D2216-90	1	13-OCT-11
DE-29F-10112011	L11100434-40	D2216-90	1	13-OCT-11
DE-29G-10112011	L11100434-41	D2216-90	1	13-OCT-11
DE-28A-10112011	L11100434-42	D2216-90	1	13-OCT-11
DE-28B-10112011	L11100434-43	D2216-90	1	13-OCT-11
DE-28C-10112011	L11100434-44	D2216-90	1	13-OCT-11
DE-28D-10112011	L11100434-45	D2216-90	1	13-OCT-11
DE-28E-10112011	L11100434-46	D2216-90	1	13-OCT-11
DE-28F-10112011	L11100434-47	D2216-90	1	13-OCT-11
DE-28G-10112011	L11100434-48	D2216-90	1	13-OCT-11
DE-27A-10112011	L11100434-49	D2216-90	1	13-OCT-11
DE-27B-10112011	L11100434-50	D2216-90	1	13-OCT-11
DE-27C-10112011	L11100434-51	D2216-90	1	13-OCT-11
DE-27D-10112011	L11100434-52	D2216-90	1	13-OCT-11
DE-27E-10112011	L11100434-53	D2216-90	1	13-OCT-11
DE-27F-10112011	L11100434-54	D2216-90	1	13-OCT-11
DE-27G-10112011	L11100434-55	D2216-90	1	13-OCT-11
DUP-SOIL-10112011-01	L11100434-56	D2216-90	1	13-OCT-11
DUP-SOIL-10112011-02	L11100434-57	D2216-90	1	13-OCT-11

L1_A_PROD - Modified 03/06/2008
 PDF File ID: 2212067
 Report generated: 11/08/2011 11:19

2 OF 2



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-01	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-30A-10102011	Prep Method: D2216-90	Prep Date: 10/26/2011 08:59
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG380136	Analyst: JDH	Run Date: 10/26/2011 08:59
Collect Date: 10/10/2011 13:15	Dilution: 1	File ID: B1.380136-0101
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	74.1		1.00	1.00



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-02	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-30E-10102011	Prep Method: D2216-90	Prep Date: 10/26/2011 08:59
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG380136	Analyst: JDH	Run Date: 10/26/2011 08:59
Collect Date: 10/10/2011 13:17	Dilution: 1	File ID: B1.380136-0102
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	82.7		1.00	1.00



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-03	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-30C-10102011	Prep Method: D2216-90	Prep Date: 10/26/2011 08:59
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG380136	Analyst: JDH	Run Date: 10/26/2011 08:59
Collect Date: 10/10/2011 13:19	Dilution: 1	File ID: B1.380136-0103
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	87.5		1.00	1.00



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-04	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-30D-10102011	Prep Method: D2216-90	Prep Date: 10/26/2011 08:59
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG380136	Analyst: JDH	Run Date: 10/26/2011 08:59
Collect Date: 10/10/2011 13:22	Dilution: 1	File ID: B1.380136-0104
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	84.1		1.00	1.00



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-05	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-30E-10102011	Prep Method: D2216-90	Prep Date: 10/26/2011 08:59
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG380136	Analyst: JDH	Run Date: 10/26/2011 08:59
Collect Date: 10/10/2011 13:25	Dilution: 1	File ID: B1.380136-0105
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	89.8		1.00	1.00



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-06	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-30F-10102011	Prep Method: D2216-90	Prep Date: 10/26/2011 08:59
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG380136	Analyst: JDH	Run Date: 10/26/2011 08:59
Collect Date: 10/10/2011 13:27	Dilution: 1	File ID: B1.380136-0106
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	95.5		1.00	1.00



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-07	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-30G-10102011	Prep Method: D2216-90	Prep Date: 10/26/2011 08:59
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG380136	Analyst: JDH	Run Date: 10/26/2011 08:59
Collect Date: 10/10/2011 13:35	Dilution: 1	File ID: B1.380136-0107
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	93.2		1.00	1.00



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-08	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-31A-10102011	Prep Method: D2216-90	Prep Date: 10/26/2011 08:59
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG380136	Analyst: JDH	Run Date: 10/26/2011 08:59
Collect Date: 10/10/2011 13:57	Dilution: 1	File ID: B1.380136-0108
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	65.1		1.00	1.00



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-09	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-31B-10102011	Prep Method: D2216-90	Prep Date: 10/26/2011 08:59
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG380136	Analyst: JDH	Run Date: 10/26/2011 08:59
Collect Date: 10/10/2011 13:59	Dilution: 1	File ID: B1.380136-0109
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	80.7		1.00	1.00



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-10	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-31C-10102011	Prep Method: D2216-90	Prep Date: 10/26/2011 08:59
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG380136	Analyst: JDH	Run Date: 10/26/2011 08:59
Collect Date: 10/10/2011 14:01	Dilution: 1	File ID: B1.380136-0110
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	91.2		1.00	1.00



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-11	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-31D-10102011	Prep Method: D2216-90	Prep Date: 10/26/2011 08:59
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG380136	Analyst: JDH	Run Date: 10/26/2011 08:59
Collect Date: 10/10/2011 14:03	Dilution: 1	File ID: B1.380136-0111
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	94.3		1.00	1.00



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-12	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-31E-10102011	Prep Method: D2216-90	Prep Date: 10/26/2011 08:59
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG380136	Analyst: JDH	Run Date: 10/26/2011 08:59
Collect Date: 10/10/2011 14:05	Dilution: 1	File ID: B1.380136-0112
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	96.9		1.00	1.00



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-13	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-31F-10102011	Prep Method: D2216-90	Prep Date: 10/26/2011 08:59
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG380136	Analyst: JDH	Run Date: 10/26/2011 08:59
Collect Date: 10/10/2011 14:07	Dilution: 1	File ID: B1.380136-0113
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	97.4		1.00	1.00



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-14	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-31G-10102011	Prep Method: D2216-90	Prep Date: 10/26/2011 08:59
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG380136	Analyst: JDH	Run Date: 10/26/2011 08:59
Collect Date: 10/10/2011 14:20	Dilution: 1	File ID: B1.380136-0114
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	94.8		1.00	1.00



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-15	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-31G-10102011MS	Prep Method: D2216-90	Prep Date: 10/26/2011 08:59
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG380136	Analyst: JDH	Run Date: 10/26/2011 08:59
Collect Date: 10/10/2011 14:20	Dilution: 1	File ID: B1.380136-0115
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	94.8		1.00	1.00



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-16	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-31G-10102011MSD	Prep Method: D2216-90	Prep Date: 10/26/2011 08:59
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG380136	Analyst: JDH	Run Date: 10/26/2011 08:59
Collect Date: 10/10/2011 14:20	Dilution: 1	File ID: B1.380136-0116
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	94.8		1.00	1.00



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-17	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-32A-10102011	Prep Method: D2216-90	Prep Date: 10/26/2011 08:59
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG380136	Analyst: JDH	Run Date: 10/26/2011 08:59
Collect Date: 10/10/2011 14:34	Dilution: 1	File ID: B1.380136-0117
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	70.3		1.00	1.00



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-18	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-32E-10102011	Prep Method: D2216-90	Prep Date: 10/26/2011 08:59
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG380136	Analyst: JDH	Run Date: 10/26/2011 08:59
Collect Date: 10/10/2011 14:36	Dilution: 1	File ID: B1.380136-0118
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	76.5		1.00	1.00



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-19	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-32C-10102011	Prep Method: D2216-90	Prep Date: 10/26/2011 08:59
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG380136	Analyst: JDH	Run Date: 10/26/2011 08:59
Collect Date: 10/10/2011 14:38	Dilution: 1	File ID: B1.380136-0119
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	87.6		1.00	1.00



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-20	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-32D-10102011	Prep Method: D2216-90	Prep Date: 10/26/2011 08:59
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG380136	Analyst: JDH	Run Date: 10/26/2011 08:59
Collect Date: 10/10/2011 14:41	Dilution: 1	File ID: B1.380136-0120
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	89.7		1.00	1.00



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-21	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-32D-10102011MS	Prep Method: D2216-90	Prep Date: 10/26/2011 08:59
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG380136	Analyst: JDH	Run Date: 10/26/2011 08:59
Collect Date: 10/10/2011 14:41	Dilution: 1	File ID: B1.380136-0121
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	89.7		1.00	1.00



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-22
 Client ID: DE-32D-10102011MSD
 Matrix: Soil
 Workgroup Number: WG380136
 Collect Date: 10/10/2011 14:41
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: D2216-90
 Analytical Method: D2216-90
 Analyst: JDH
 Dilution: 1
 Units: weight %

Instrument: BAL001
 Prep Date: 10/26/2011 08:59
 Cal Date:
 Run Date: 10/26/2011 08:59
 File ID: B1.380136-0122

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	89.7		1.00	1.00



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-23
 Client ID: DE-32E-10102011
 Matrix: Soil
 Workgroup Number: WG380136
 Collect Date: 10/10/2011 14:45
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: D2216-90
 Analytical Method: D2216-90
 Analyst: JDH
 Dilution: 1
 Units: weight %

Instrument: BAL001
 Prep Date: 10/26/2011 08:59
 Cal Date:
 Run Date: 10/26/2011 08:59
 File ID: B1.380136-0123

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	93.0		1.00	1.00



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-24	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-33A-10102011	Prep Method: D2216-90	Prep Date: 10/26/2011 08:59
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG380136	Analyst: JDH	Run Date: 10/26/2011 08:59
Collect Date: 10/10/2011 15:32	Dilution: 1	File ID: B1.380136-0124
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	65.5		1.00	1.00



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-25	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-33E-10102011	Prep Method: D2216-90	Prep Date: 10/26/2011 08:59
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG380136	Analyst: JDH	Run Date: 10/26/2011 08:59
Collect Date: 10/10/2011 15:35	Dilution: 1	File ID: B1.380136-0125
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	86.8		1.00	1.00



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-26	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-33C-10102011	Prep Method: D2216-90	Prep Date: 10/26/2011 08:59
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG380136	Analyst: JDH	Run Date: 10/26/2011 08:59
Collect Date: 10/10/2011 15:37	Dilution: 1	File ID: B1.380136-0126
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	92.9		1.00	1.00



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-27	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-33D-10102011	Prep Method: D2216-90	Prep Date: 10/26/2011 08:59
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG380136	Analyst: JDH	Run Date: 10/26/2011 08:59
Collect Date: 10/10/2011 15:40	Dilution: 1	File ID: B1.380136-0127
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	94.5		1.00	1.00



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-28
 Client ID: DE-33E-10102011
 Matrix: Soil
 Workgroup Number: WG380136
 Collect Date: 10/10/2011 15:42
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: D2216-90
 Analytical Method: D2216-90
 Analyst: JDH
 Dilution: 1
 Units: weight %

Instrument: BAL001
 Prep Date: 10/26/2011 08:59
 Cal Date:
 Run Date: 10/26/2011 08:59
 File ID: B1.380136-0128

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	98.2		1.00	1.00



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-29	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-33F-10102011	Prep Method: D2216-90	Prep Date: 10/26/2011 08:59
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG380136	Analyst: JDH	Run Date: 10/26/2011 08:59
Collect Date: 10/10/2011 15:45	Dilution: 1	File ID: B1.380136-0129
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	97.6		1.00	1.00



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-30	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-33G-10102011	Prep Method: D2216-90	Prep Date: 10/26/2011 08:59
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG380136	Analyst: JDH	Run Date: 10/26/2011 08:59
Collect Date: 10/10/2011 15:53	Dilution: 1	File ID: B1.380136-0130
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	93.3		1.00	1.00



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-31	PrePrep Method: NONE	Instrument: BAL001
Client ID: DUP-SOIL-10102011-01	Prep Method: D2216-90	Prep Date: 10/26/2011 08:59
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG380136	Analyst: JDH	Run Date: 10/26/2011 08:59
Collect Date: 10/10/2011 08:00	Dilution: 1	File ID: B1.380136-0131
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	97.4		1.00	1.00



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-32	PrePrep Method: NONE	Instrument: BAL001
Client ID: DUP-SOIL-10102011-02	Prep Method: D2216-90	Prep Date: 10/26/2011 08:59
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG380136	Analyst: JDH	Run Date: 10/26/2011 08:59
Collect Date: 10/10/2011 08:05	Dilution: 1	File ID: B1.380136-0132
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	92.1		1.00	1.00



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-33	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-29A-10112011	Prep Method: D2216-90	Prep Date: 10/26/2011 08:59
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG380136	Analyst: JDH	Run Date: 10/26/2011 08:59
Collect Date: 10/11/2011 08:38	Dilution: 1	File ID: B1.380136-0133
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	70.8		1.00	1.00



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-34	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-29E-10112011	Prep Method: D2216-90	Prep Date: 10/26/2011 08:59
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG380136	Analyst: JDH	Run Date: 10/26/2011 08:59
Collect Date: 10/11/2011 08:40	Dilution: 1	File ID: B1.380136-0134
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	80.9		1.00	1.00



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-35	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-29C-10112011	Prep Method: D2216-90	Prep Date: 10/26/2011 08:59
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG380136	Analyst: JDH	Run Date: 10/26/2011 08:59
Collect Date: 10/11/2011 08:42	Dilution: 1	File ID: B1.380136-0135
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	89.7		1.00	1.00



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-36	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-29D-10112011	Prep Method: D2216-90	Prep Date: 10/26/2011 08:59
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG380136	Analyst: JDH	Run Date: 10/26/2011 08:59
Collect Date: 10/11/2011 08:45	Dilution: 1	File ID: B1.380136-0136
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	92.3		1.00	1.00



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-37	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-29E-10112011	Prep Method: D2216-90	Prep Date: 10/26/2011 08:59
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG380136	Analyst: JDH	Run Date: 10/26/2011 08:59
Collect Date: 10/11/2011 08:47	Dilution: 1	File ID: B1.380136-0137
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	94.6		1.00	1.00



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-38	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-29E-10112011MS	Prep Method: D2216-90	Prep Date: 10/26/2011 08:59
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG380136	Analyst: JDH	Run Date: 10/26/2011 08:59
Collect Date: 10/11/2011 08:47	Dilution: 1	File ID: B1.380136-0138
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	94.6		1.00	1.00



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-39	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-29E-10112011MSD	Prep Method: D2216-90	Prep Date: 10/26/2011 08:59
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG380136	Analyst: JDH	Run Date: 10/26/2011 08:59
Collect Date: 10/11/2011 08:47	Dilution: 1	File ID: B1.380136-0139
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	94.6		1.00	1.00



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-40	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-29F-10112011	Prep Method: D2216-90	Prep Date: 10/26/2011 08:59
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG380136	Analyst: JDH	Run Date: 10/26/2011 08:59
Collect Date: 10/11/2011 08:50	Dilution: 1	File ID: B1.380136-0140
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	96.5		1.00	1.00



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-41	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-29G-10112011	Prep Method: D2216-90	Prep Date: 10/26/2011 08:59
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG380136	Analyst: JDH	Run Date: 10/26/2011 08:59
Collect Date: 10/11/2011 08:52	Dilution: 1	File ID: B1.380136-0141
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	96.2		1.00	1.00



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-42	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-28A-10112011	Prep Method: D2216-90	Prep Date: 10/26/2011 08:59
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG380136	Analyst: JDH	Run Date: 10/26/2011 08:59
Collect Date: 10/11/2011 09:16	Dilution: 1	File ID: B1.380136-0142
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	81.0		1.00	1.00



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-43	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-28E-10112011	Prep Method: D2216-90	Prep Date: 10/26/2011 08:59
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG380136	Analyst: JDH	Run Date: 10/26/2011 08:59
Collect Date: 10/11/2011 09:18	Dilution: 1	File ID: B1.380136-0143
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	73.0		1.00	1.00



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-44	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-28C-10112011	Prep Method: D2216-90	Prep Date: 10/26/2011 08:59
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG380136	Analyst: JDH	Run Date: 10/26/2011 08:59
Collect Date: 10/11/2011 09:20	Dilution: 1	File ID: B1.380136-0144
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	73.3		1.00	1.00



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-45	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-28D-10112011	Prep Method: D2216-90	Prep Date: 10/26/2011 08:59
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG380136	Analyst: JDH	Run Date: 10/26/2011 08:59
Collect Date: 10/11/2011 09:23	Dilution: 1	File ID: B1.380136-0145
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	79.2		1.00	1.00



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-46	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-28E-10112011	Prep Method: D2216-90	Prep Date: 10/26/2011 08:59
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG380136	Analyst: JDH	Run Date: 10/26/2011 08:59
Collect Date: 10/11/2011 09:25	Dilution: 1	File ID: B1.380136-0146
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	78.1		1.00	1.00



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-47	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-28F-10112011	Prep Method: D2216-90	Prep Date: 10/26/2011 08:59
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG380136	Analyst: JDH	Run Date: 10/26/2011 08:59
Collect Date: 10/11/2011 09:28	Dilution: 1	File ID: B1.380136-0147
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	80.8		1.00	1.00



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-48	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-28G-10112011	Prep Method: D2216-90	Prep Date: 10/26/2011 08:59
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG380136	Analyst: JDH	Run Date: 10/26/2011 08:59
Collect Date: 10/11/2011 09:33	Dilution: 1	File ID: B1.380136-0148
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	79.5		1.00	1.00



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-49	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-27A-10112011	Prep Method: D2216-90	Prep Date: 10/26/2011 08:59
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG380136	Analyst: JDH	Run Date: 10/26/2011 08:59
Collect Date: 10/11/2011 09:52	Dilution: 1	File ID: B1.380136-0149
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	72.9		1.00	1.00



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-50	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-27B-10112011	Prep Method: D2216-90	Prep Date: 10/26/2011 08:59
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG380136	Analyst: JDH	Run Date: 10/26/2011 08:59
Collect Date: 10/11/2011 09:54	Dilution: 1	File ID: B1.380136-0150
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	79.3		1.00	1.00



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-51	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-27C-10112011	Prep Method: D2216-90	Prep Date: 10/26/2011 08:59
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG380136	Analyst: JDH	Run Date: 10/26/2011 08:59
Collect Date: 10/11/2011 09:56	Dilution: 1	File ID: B1.380136-0151
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	87.2		1.00	1.00



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-52	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-27D-10112011	Prep Method: D2216-90	Prep Date: 10/26/2011 08:59
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG380136	Analyst: JDH	Run Date: 10/26/2011 08:59
Collect Date: 10/11/2011 09:59	Dilution: 1	File ID: B1.380136-0152
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	87.5		1.00	1.00



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-53	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-27E-10112011	Prep Method: D2216-90	Prep Date: 10/26/2011 08:59
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG380136	Analyst: JDH	Run Date: 10/26/2011 08:59
Collect Date: 10/11/2011 10:01	Dilution: 1	File ID: B1.380136-0153
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	87.5		1.00	1.00



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-54	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-27F-10112011	Prep Method: D2216-90	Prep Date: 10/26/2011 08:59
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG380136	Analyst: JDH	Run Date: 10/26/2011 08:59
Collect Date: 10/11/2011 10:03	Dilution: 1	File ID: B1.380136-0154
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	89.9		1.00	1.00



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-55	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-27G-10112011	Prep Method: D2216-90	Prep Date: 10/26/2011 08:59
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG380136	Analyst: JDH	Run Date: 10/26/2011 08:59
Collect Date: 10/11/2011 10:08	Dilution: 1	File ID: B1.380136-0155
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	81.9		1.00	1.00



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-56	PrePrep Method: NONE	Instrument: BAL001
Client ID: DUP-SOIL-10112011-01	Prep Method: D2216-90	Prep Date: 10/26/2011 08:59
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG380136	Analyst: JDH	Run Date: 10/26/2011 08:59
Collect Date: 10/11/2011 08:00	Dilution: 1	File ID: B1.380136-0156
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	94.7		1.00	1.00



Report Number: L11100434

Report Date : November 8, 2011

Sample Number: L11100434-57	PrePrep Method: NONE	Instrument: BAL001
Client ID: DUP-SOIL-10112011-02	Prep Method: D2216-90	Prep Date: 10/26/2011 08:59
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG380136	Analyst: JDH	Run Date: 10/26/2011 08:59
Collect Date: 10/11/2011 08:05	Dilution: 1	File ID: B1.380136-0157
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	89.7		1.00	1.00



Example Percent Solids Calculations

1.0 Calculating the percent solids of a sample.

$$\%Solids = \frac{WT3 - WT1}{WT2 - WT1} \times F$$

Where:

WT1 = Weight, in grams, of the empty container 1.30 g

WT2 = Weight, in grams, of the container and wet sample 21.274 g

WT3 = Weight, in grams, of the container and dried sample 5.21 g

F = Factor to get units as percent weight 100

%Solids = Percent solids present in sample. 19.58%

2.0 Calculating the percent moisture of a sample.

$$\% \text{ Moisture} = 100 - \% \text{ Solids from 1.0 calculation}$$

PERCENT SOLIDS

Workgroup (AAB#): WG380136
 Method: D2216-90
 SOP: K0003 Rev: 11

Analyst: JDH
 Instrument: BAL001

ADT(on): 10/25/2011 15:23
 ADT(off): 10/26/2011 08:59

SAMPLE NUMBER	EMPTY PAN WT 1	WET WT 2	DRY WT 3A	DRY WT 3B	DRY WT 3C	PERCENT SOLID	PERCENT MOISTURE
L11100434-01	1.25	14.47	11.04			74.05	
L11100434-02	1.3	15.24	12.83			82.71	
L11100434-03	1.3	12.84	11.4			87.52	
L11100434-04	1.26	18.42	15.69			84.09	
L11100434-05	1.3	21.67	19.6			89.84	
L11100434-06	1.26	19.45	18.63			95.49	
L11100434-07	1.32	39.9	37.26			93.16	
L11100434-08	1.26	13.01	8.91			65.11	
L11100434-09	1.26	19.76	16.19			80.70	
L11100434-10	1.27	22.34	20.49			91.22	
L11100434-11	1.3	33.13	31.3			94.25	
L11100434-12	1.26	28.15	27.31			96.88	
L11100434-13	1.26	31.29	30.51			97.40	
L11100434-14	1.27	25.76	24.49			94.81	
L11100434-15	1.27	25.76	24.49			94.81	
L11100434-16	1.27	25.76	24.49			94.81	
L11100434-17	1.27	11.54	8.49			70.30	
L11100434-18	1.34	17.69	13.85			76.51	
L11100434-19	1.27	27.87	24.58			87.63	
L11100434-20	1.27	20.03	18.1			89.71	
L11100434-21	1.27	20.03	18.1			89.71	
L11100434-22	1.27	20.03	18.1			89.71	
L11100434-23	1.26	14.43	13.51			93.01	
L11100434-24	1.27	15.77	10.77			65.52	
L11100434-25	1.27	27.09	23.68			86.79	
L11100434-26	1.33	32.26	30.05			92.85	
L11100434-27	1.27	30.22	28.63			94.51	
L11100434-28	1.27	27.78	27.29			98.15	
L11100434-29	1.28	16.58	16.22			97.65	
L11100434-30	1.27	22.26	20.86			93.33	
L11100434-31	1.27	16.95	16.54			97.39	
L11100434-32	1.26	15.63	14.5			92.14	
L11100434-33	1.27	12.01	8.87			70.76	
L11100434-34	1.26	11.72	9.72			80.88	
L11100434-35	1.27	12.85	11.66			89.72	
L11100434-36	1.27	16.99	15.78			92.30	
L11100434-37	1.27	25.99	24.65			94.58	
L11100434-38	1.27	25.99	24.65			94.58	
L11100434-39	1.27	25.99	24.65			94.58	
L11100434-40	1.26	18.78	18.17			96.52	
L11100434-41	1.26	36.17	34.83			96.16	
L11100434-42	1.28	13.17	10.91			80.99	

PERCENT SOLIDS - Modified 04/24/2008
 PDF ID: 2195059
 Report generated: 10/26/2011 09:03



PERCENT SOLIDS

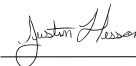
Workgroup (AAB#): WG380136
 Method: D2216-90
 SOP: K0003 Rev: 11

Analyst: JDH
 Instrument: BAL001

ADT(on): 10/25/2011 15:23
 ADT(off): 10/26/2011 08:59

SAMPLE NUMBER	EMPTY PAN WT 1	WET WT 2	DRY WT 3A	DRY WT 3B	DRY WT 3C	PERCENT SOLID	PERCENT MOISTURE
L11100434-43	1.27	14.04	10.59			72.98	
L11100434-44	1.27	12.71	9.66			73.34	
L11100434-45	1.27	26.02	20.86			79.15	
L11100434-46	1.27	27.41	21.69			78.12	
L11100434-47	1.28	32.61	26.61			80.85	
L11100434-48	1.26	23.68	19.09			79.53	
L11100434-49	1.3	17.12	12.83			72.88	
L11100434-50	1.26	17.91	14.47			79.34	
L11100434-51	1.26	26.63	23.38			87.19	
L11100434-52	1.26	30.66	26.98			87.48	
L11100434-53	1.26	34.93	30.73			87.53	
L11100434-54	1.26	15.77	14.3			89.87	
L11100434-55	1.26	20.35	16.89			81.88	
L11100434-56	1.27	26.34	25.02			94.73	
L11100434-57	1.26	15.38	13.93			89.73	
WG380136-01	1.27	20.03	18.1			89.71	10.29
WG380136-02	1.26	18.78	18.17			96.52	3.482
WG380136-03	1.26	15.38	13.93			89.73	10.27
WG380136-04	1.27	19.52	17.67			89.86	10.14
WG380136-05	1.31	28.01	26.91			95.88	4.120
WG380136-06	1.27	25.04	22.53			89.44	10.56

Analyst: _____




3.0 Attachments

Microbac Laboratories Inc.
Analyst Listing
November 8, 2011

ADC - ANTHONY D. CANTER	AJF - AMANDA J. FICKIESEN	ALB - ANNIE L. BROWN
ALV - AMY L. VALENTINE	AML - TONY M. LONG	AZH - AFTER HOURS
BLG - BRENDA L. GREENWALT	BRG - BRENDA R. GREGORY	CAA - CASSIE A. AUGENSTEIN
CAF - CHERYL A. FLOWERS	CEB - CHAD E. BARNES	CLC - CHRYS L. CRAWFORD
CLS - CARA L. STRICKLER	CLW - CHARISSA L. WINTERS	CPD - CHAD P. DAVIS
CS - CODY M. STRAHLER	CSH - CHRIS S. HILL	DDE - DEBRA D. ELLIOTT
DEV - DAVID E. VANDENBERG	DGB - DOUGLAS G. BUTCHER	DHG - DEBORAH H. GRIFFITHS
DIH - DEANNA I. HESSON	DLB - DAVID L. BUMGARNER	DLP - DOROTHY L. PAYNE
DLR - DIANNA L. RAUCH	DSM - DAVID S. MOSSOR	ECL - ERIC C. LAWSON
EDL - ERIN D. LONG	ERP - ERIN R. PORTER	FJB - FRANCES J. BOLDEN
HAV - HEMA VILASAGAR	HJR - HOLLY J. REED	JAL - JOHN A. LENT
JBK - JEREMY B. KINNEY	JDH - JUSTIN D. HESSON	JKT - JANE K. THOMPSON
JLL - JOHN L. LENT	JWR - JOHN W. RICHARDS	JWS - JACK W. SHEAVES
JYH - JI Y. HU	KEB - KATIE E. BARNES	KHR - KIM H. RHODES
KRA - KATHY R. ALBERTSON	LKN - LINDA K. NEDEFF	LSB - LESLIE S. BUCINA
MDA - MIKE D. ALBERTSON	MDC - MIKE D. COCHRAN	MES - MARY E. SCHILLING
MMB - MAREN M. BEERY	MRT - MICHELLE R. TAYLOR	MSW - MATT S. WILSON
PDM - PIERCE D. MORRIS	PWD - PAUL W. DENT	RAH - ROY A. HALSTEAD
REK - BOB E. KYER	RLB - BOB BUCHANAN	RLK - ROBIN L. KLINGER
RWC - RODNEY W. CAMPBELL	SJP - SUZANNE J. PAUGH	SLM - STEPHANIE L. MOSSBURG
SLP - SHERI L. PFALZGRAF	TIP - TAE I. PARRISH	TMB - TIFFANY M. BAILEY
TMM - TAMMY M. MORRIS	VC - VICKI COLLIER	WJB - WILL J. BEASLEY
WTD - WADE T. DELONG		

November 08, 2011

Qualkey: WATERLOO

Qualifier	Description
*	Surrogate or spike compound out of range
+	Correlation coefficient for the MSA is less than 0.995
<	Result is less than the associated numerical value.
>	Result is greater than the associated numerical value.
A	See the report narrative
B	Analyte present in method blank
B1	Target analyte detected in method blank at or above the method reporting limit
B3	Target analyte detected in calibration blank at or above the method reporting limit
B4	The BOD unseeded dilution water blank exceeded 0.2 mg/L
C	Confirmed by GC/MS
CG	Confluent growth
DL	Surrogate or spike compound was diluted out
E	Estimated concentration due to interference.
E	Semiquantitative result (out of calibration range)
EDL	Elevated sample reporting limits, presence of non-target analytes
EMPC	Estimated Maximum Possible Concentration
F, S	Estimated result below quantitation limit; method of standard additions(MSA)
FL	Free Liquid
H1	Sample analysis performed past holding time.
I	Semiquantitative result (out of instrument calibration range)
J	Estimated concentration.
J	The analyte was positively identified, but the quantitation was below the RL.
J,B	Analyte detected in both the method blank and sample above the MDL.
J,P	Estimate; columns don't agree to within 40%
J,S	Estimated concentration; analyzed by method of standard addition (MSA)
L	Sample reporting limits elevated due to matrix interference
L1	The associated blank spike (LCS) recovery was above the laboratory acceptance limits.
L2	The associated blank spike (LCS) recovery was below the laboratory acceptance limits.
M	Matrix effect; the concentration is an estimate due to matrix effect.
N	Tentatively identified compound(TIC)
NA	Not applicable
ND	Not detected at or above the reporting limit (RL).
ND, L	Not detected; sample reporting limit (RL) elevated due to interference
ND, S	Not detected; analyzed by method of standard addition (MSA)
NF	Not found by library search
NFL	No free liquid
NI	Non-ignitable
NR	Analyte is not required to be analyzed
NS	Not spiked
P	Concentrations >40% difference between the two GC columns
Q	One or more quality control criteria failed. See narrative.
QNS	Quantity of sample not sufficient to perform analysis
RA	Reanalysis confirms reported results
RE	Reanalysis confirms sample matrix interference
S	Analyzed by method of standard addition (MSA)
SMI	Sample matrix interference on surrogate
SP	Reported results are for spike compounds only
TIC	Library Search Compound
TNTC	Too numerous to count
U	Not detected at or above adjusted sample detection limit.
UJ	Undetected; the MDL and RL are estimated due to quality control discrepancies.
UJ	Undetected; the analyte was analyzed for, but not detected.
UQ	Undetected; the analyte was analyzed for, but not detected.
W	Post-digestion spike for furnace AA out of control limits
X	Exceeds regulatory limit
X, S	Exceeds regulatory limit; method of standard additions (MSA)
Z	Cannot be resolved from isomer - see below

***Special Notes for Organic Analytes



Qualkey: WATERLOO

1. Acrolein and acrylonitrile by method 624 are semi-quantitative screens only.
2. 1,2-Diphenylhydrazine is unstable and is reported as azobenzene.
3. N-nitrosodiphenylamine cannot be separated from diphenylamine.
4. 3-Methylphenol and 4-Methylphenol are unresolvable compounds.
5. m-Xylene and p-Xylene are unresolvable compounds.
6. The reporting limits for Appendix II/IX compounds by method 8270 are based on EPA estimated PQLs referenced in 40 CFR Part 264, Appendix IX. They are not always achievable for every compound and are matrix dependent.





COC No. A 26188
158 Starlite Drive
Marietta, OH 45750



CHAIN-OF-CUSTODY RECORD

Phone: 740-373-4071
Fax: 740-373-4835

Company Name: CH2M HILL
 Project Contact: Bill Moore Contact Phone #: 973.316.9300
 Turn Around Requirements: Standar Location: West-100, NY
 Project ID: Gorkam St. 416903.03.02
 Sampler (print): James Balas Signature: [Signature]

Sample I.D. No.	Date	Time	Matrix*	Hold	NUMBER OF CONTAINERS	Program	ADDITIONAL REQUIREMENTS
DE-30A-10102011	10/10/11	1315	S	X	1	<input type="checkbox"/> CWA <input type="checkbox"/> RCRA <input type="checkbox"/> DOD <input type="checkbox"/> AFCEE <input type="checkbox"/> Other	
DE-30B-10102011	1317			X			
DE-30C-10102011	1319			X			
DE-30D-10102011	1322			X			
DE-30E-10102011	1325			X			
DE-30F-10102011	1327			X			
DE-30G-10102011	1335			X			
DE-31A-10102011	1357			X			
DE-31B-10102011	1359			X			
DE-31C-10102011	1401			X			
DE-31D-10102011	1403			X			
DE-31E-10102011	1405			X			
DE-31F-10102011	1407			X			
DE-31G-10102011-MS/MSD	1420			X	3		MS/MSD
DE-32A-10102011	1434			X	1		
DE-32B-10102011	1436			X	1		
DE-32C-10102011	1438			X	1		
DE-32D-10102011-MS/MSD	1441			X	3		MS/MSD
DE-32E-10102011	1445			X	1		
DE-33A-10102011	1532			X	1		
TOTAL # (LAB USE)							

Relinquished by: [Signature] Date: 10/21/11 Time: 1200 Received by: Kesley (Signature) Date: 10/21/11 Time: 1200

Relinquished by: [Signature] Date: 10/21/11 Time: 1532 Received by: [Signature] (Signature) Date: 10/21/11 Time: 1532

Microbac OVD
Received: 10/13/2011 10:19
By: BRENDA GREENMALT

221000019198
Received by: [Signature] (Signature) Date: 10/13/2011 Time: 10:19

Brenda Greenmalt



COC No. A 26189
158 Starlite Drive
Marietta, OH 45750



Phone: 740-373-4071
Fax: 740-373-4835

CHAIN-OF-CUSTODY RECORD

Company Name: CH2M Hill		Contact Phone #: 973.316.9300						
Project Contact: Bill Moore		Location: Waterloo, NY						
Turn Around Requirements: Standard		Project ID: Gerham St 416903.03.02						
Sampler (print): James Balas		Signature: 						
Sample ID No.	Comp	Grab	Date	Time	Matrix*	Hold	NUMBER OF CONTAINERS	ADDITIONAL REQUIREMENTS
DE-328-10102011	X		10/10/11	1535	S	X	1	
DE-330-10102011	X			1537		X	1	
DE-330-10102011	X			1540		X	1	
DE-330-10102011	X			1542		X	1	
DE-330-10102011	X			1545		X	1	
DE-330-10102011	X			1553		X	1	
DUP-50IL-10102011-01	X			0800		X	1	
DUP-50IL-10102011-02	X			0805		X	1	
DE-29A-10112011	X		10/11/11	0838		X	1	
DE-29B-10112011	X			0840		X	1	
DE-29C-10112011	X			0842		X	1	
DE-29D-10112011	X			0845		X	1	
DE-29E-10112011-MS/msd	X			0847		X	3	ms/msd
DE-29F-10112011	X			0850		X	1	
DE-29G-10112011	X			0852		X	1	
DE-28A-10112011	X			0916		X	1	
DE-28B-10112011	X			0918		X	1	
DE-28C-10112011	X			0920		X	1	
DE-28D-10112011	X			0923		X	1	
DE-28E-10112011	X			0925		X	1	
Relinquished by: 		Date	Time		Received by: FedEx		Time	
		10/12/11	1200				1200	
Relinquished by: 		Date	Time		Received for Laboratory by:		Time	

As + Cd vs 6210B

TOTAL # (LAB USE)

Program
 CWA
 RCRA
 DOD
 AFCEE
 Other

ADDITIONAL REQUIREMENTS

Microbac OVD
 Received: 10/13/2011 10:19
 By: BRENDA GREENWALT



Brenda Greenwalt

*Water (W), Soil (S), Solid Waste (SD), Unknown (X)

Microbac Laboratories Inc.
Internal Chain of Custody Report

Login: L11100434
Account: 2736
Project: 2736.103
Samples: 58
Due Date: 27-OCT-2011

Samplenum **Container ID** **Products**
L11100434-01 895708 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	14-OCT-2011 09:31	RLK	
2	PREP	W1	DIG	14-OCT-2011 10:21	REK	RLK
3	STORE	WET	A2	26-OCT-2011 07:56	AZH	JDH
4	STORE	W1	A2	31-OCT-2011 07:16	BLG	BLG

Samplenum **Container ID** **Products**
L11100434-02 895709 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	14-OCT-2011 09:31	RLK	
2	PREP	W1	DIG	14-OCT-2011 10:21	REK	RLK
3	STORE	WET	A2	26-OCT-2011 07:56	AZH	JDH
4	STORE	W1	A2	31-OCT-2011 07:17	BLG	BLG

Samplenum **Container ID** **Products**
L11100434-03 895710 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	14-OCT-2011 09:31	RLK	
2	PREP	W1	DIG	14-OCT-2011 10:21	REK	RLK
3	STORE	WET	A2	26-OCT-2011 07:56	AZH	JDH
4	STORE	W1	A2	31-OCT-2011 07:28	BLG	BLG

Samplenum **Container ID** **Products**
L11100434-04 895711 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	14-OCT-2011 09:31	RLK	
2	STORE	W1	A2	31-OCT-2011 07:27	BLG	BLG

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login



Microbac Laboratories Inc.
Internal Chain of Custody Report

Login: L11100434
Account: 2736
Project: 2736.103
Samples: 58
Due Date: 27-OCT-2011

Samplenum **Container ID** **Products**
L11100434-05 895712 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	14-OCT-2011 09:31	RLK	
2	STORE	W1	A2	31-OCT-2011 07:27	BLG	BLG

Samplenum **Container ID** **Products**
L11100434-06 895713 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	14-OCT-2011 09:31	RLK	
2	PREP	W1	DIG	14-OCT-2011 10:22	REK	RLK
3	STORE	WET	A2	26-OCT-2011 07:56	AZH	JDH
4	STORE	W1	A2	31-OCT-2011 07:18	BLG	BLG

Samplenum **Container ID** **Products**
L11100434-07 895714 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	14-OCT-2011 09:31	RLK	
2	STORE	W1	A2	31-OCT-2011 07:27	BLG	BLG

Samplenum **Container ID** **Products**
L11100434-08 895715 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	14-OCT-2011 09:31	RLK	
2	PREP	W1	DIG	14-OCT-2011 10:22	REK	RLK
3	STORE	WET	A2	26-OCT-2011 07:56	AZH	JDH
4	STORE	W1	A2	31-OCT-2011 07:17	BLG	BLG

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login



Internal Chain of Custody Report

Login: L11100434

Account: 2736

Project: 2736.103

Samples: 58

Due Date: 27-OCT-2011

Samplenum **Container ID** **Products**
L11100434-09 895716 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	14-OCT-2011 09:31	RLK	
2	PREP	W1	DIG	14-OCT-2011 10:22	REK	RLK
3	STORE	WET	A2	26-OCT-2011 07:56	AZH	JDH
4	STORE	W1	A2	31-OCT-2011 07:18	BLG	BLG

Samplenum **Container ID** **Products**
L11100434-10 895717 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	14-OCT-2011 09:31	RLK	
2	STORE	W1	A2	31-OCT-2011 07:26	BLG	BLG

Samplenum **Container ID** **Products**
L11100434-11 895718 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	WET	14-OCT-2011 09:31	RLK	
2	STORE	WET	A2	26-OCT-2011 07:56	AZH	JDH
3	STORE	W1	A2	31-OCT-2011 07:18	BLG	BLG

Samplenum **Container ID** **Products**
L11100434-12 895719 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	14-OCT-2011 09:31	RLK	
2	PREP	W1	DIG	14-OCT-2011 10:22	REK	RLK
3	STORE	WET	A2	26-OCT-2011 07:56	AZH	JDH
4	STORE	W1	A2	31-OCT-2011 07:18	BLG	BLG

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login



Internal Chain of Custody Report

Login: L11100434

Account: 2736

Project: 2736.103

Samples: 58

Due Date: 27-OCT-2011

Samplenum **Container ID** **Products**
L11100434-13 895720 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	14-OCT-2011 09:31	RLK	
2	PREP	W1	DIG	14-OCT-2011 10:22	REK	RLK
3	STORE	WET	A2	26-OCT-2011 07:56	AZH	JDH
4	STORE	W1	A2	31-OCT-2011 07:18	BLG	BLG

Samplenum **Container ID** **Products**
L11100434-14 895721 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	14-OCT-2011 09:31	RLK	

Samplenum **Container ID** **Products**
L11100434-15 895722 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	14-OCT-2011 09:31	RLK	
2	STORE	W1	A2	31-OCT-2011 07:27	BLG	BLG

Samplenum **Container ID** **Products**
L11100434-16 895723 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	14-OCT-2011 09:31	RLK	
2	PREP	W1	DIG	14-OCT-2011 10:23	REK	RLK
3	STORE	WET	A2	26-OCT-2011 07:55	AZH	JDH
4	STORE	W1	A2	31-OCT-2011 07:19	BLG	BLG

Samplenum **Container ID** **Products**
L11100434-17 895724 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	14-OCT-2011 09:31	RLK	
2	STORE	W1	A2	31-OCT-2011 07:28	BLG	BLG

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login



Internal Chain of Custody Report

Login: L11100434

Account: 2736

Project: 2736.103

Samples: 58

Due Date: 27-OCT-2011

Samplenum **Container ID** **Products**
L11100434-18 895725 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	14-OCT-2011 09:31	RLK	
2	PREP	W1	DIG	14-OCT-2011 10:23	REK	RLK
3	STORE	WET	A2	26-OCT-2011 07:55	AZH	JDH
4	STORE	W1	A2	31-OCT-2011 07:19	BLG	BLG

Samplenum **Container ID** **Products**
L11100434-19 895726 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	14-OCT-2011 09:31	RLK	
2	PREP	W1	DIG	14-OCT-2011 10:23	REK	RLK
3	ANALYZ*	DIG	METALS	20-OCT-2011 08:17	PDM	REK
4	STORE	WET	A2	26-OCT-2011 07:55	AZH	JDH
5	STORE	W1	A2	31-OCT-2011 07:19	BLG	BLG

**Sample extract/digestate/leachate*

Samplenum **Container ID** **Products**
L11100434-20 895727 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	14-OCT-2011 09:31	RLK	
2	STORE	W1	A2	31-OCT-2011 07:27	BLG	BLG

Samplenum **Container ID** **Products**
L11100434-21 895728 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	14-OCT-2011 09:31	RLK	
2	PREP	W1	DIG	14-OCT-2011 10:23	REK	RLK
3	ANALYZ*	DIG	METALS	24-OCT-2011 13:42	PDM	REK
4	STORE	WET	A2	26-OCT-2011 07:55	AZH	JDH
5	STORE	W1	A2	31-OCT-2011 07:19	BLG	BLG

**Sample extract/digestate/leachate*

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login



Microbac Laboratories Inc.
Internal Chain of Custody Report

Login: L11100434
Account: 2736
Project: 2736.103
Samples: 58
Due Date: 27-OCT-2011

Samplenum **Container ID** **Products**
L11100434-22 895729 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	14-OCT-2011 09:31	RLK	
2	PREP	W1	DIG	14-OCT-2011 10:23	REK	RLK
3	ANALYZ*	DIG	METALS	24-OCT-2011 13:42	PDM	REK
4	STORE	WET	A2	26-OCT-2011 07:55	AZH	JDH
5	STORE	W1	A2	31-OCT-2011 07:19	BLG	BLG

**Sample extract/digestate/leachate*

Samplenum **Container ID** **Products**
L11100434-23 895730 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	14-OCT-2011 09:31	RLK	
2	PREP	W1	DIG	14-OCT-2011 10:23	REK	RLK
3	ANALYZ*	DIG	METALS	20-OCT-2011 08:17	PDM	REK
4	STORE	WET	A2	26-OCT-2011 07:55	AZH	JDH
5	STORE	W1	A2	31-OCT-2011 07:19	BLG	BLG

**Sample extract/digestate/leachate*

Samplenum **Container ID** **Products**
L11100434-24 895731 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	14-OCT-2011 09:31	RLK	
2	PREP	W1	DIG	14-OCT-2011 10:23	REK	RLK
3	ANALYZ*	DIG	METALS	20-OCT-2011 08:17	PDM	REK
4	STORE	WET	A2	26-OCT-2011 07:55	AZH	JDH
5	STORE	W1	A2	31-OCT-2011 07:19	BLG	BLG

**Sample extract/digestate/leachate*

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login



Internal Chain of Custody Report

Login: L11100434

Account: 2736

Project: 2736.103

Samples: 58

Due Date: 27-OCT-2011

Samplenum **Container ID** **Products**
L11100434-25 895732 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	14-OCT-2011 09:31	RLK	
2	PREP	W1	DIG	14-OCT-2011 10:23	REK	RLK
3	ANALYZ*	DIG	METALS	20-OCT-2011 08:17	PDM	REK
4	STORE	WET	A2	26-OCT-2011 07:53	AZH	JDH
5	STORE	W1	A2	31-OCT-2011 07:18	BLG	BLG

**Sample extract/digestate/leachate*

Samplenum **Container ID** **Products**
L11100434-26 895733 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	14-OCT-2011 09:31	RLK	
2	PREP	W1	DIG	14-OCT-2011 10:23	REK	RLK
3	ANALYZ*	DIG	METALS	20-OCT-2011 08:17	PDM	REK
4	STORE	WET	A2	26-OCT-2011 07:53	AZH	JDH
5	STORE	W1	A2	31-OCT-2011 07:18	BLG	BLG

**Sample extract/digestate/leachate*

Samplenum **Container ID** **Products**
L11100434-27 895734 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	14-OCT-2011 09:31	RLK	
2	PREP	W1	DIG	14-OCT-2011 10:23	REK	RLK
3	ANALYZ*	DIG	METALS	24-OCT-2011 13:42	PDM	REK
4	STORE	WET	A2	26-OCT-2011 07:53	AZH	JDH
5	STORE	W1	A2	31-OCT-2011 07:17	BLG	BLG

**Sample extract/digestate/leachate*

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login



Microbac Laboratories Inc.
Internal Chain of Custody Report

Login: L11100434
Account: 2736
Project: 2736.103
Samples: 58
Due Date: 27-OCT-2011

Samplenum **Container ID** **Products**
L11100434-28 895735 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	14-OCT-2011 09:31	RLK	
2	PREP	W1	DIG	14-OCT-2011 10:23	REK	RLK
3	ANALYZ*	DIG	METALS	24-OCT-2011 13:42	PDM	REK
4	STORE	WET	A2	26-OCT-2011 07:53	AZH	JDH
5	STORE	W1	A2	31-OCT-2011 07:17	BLG	BLG

**Sample extract/digestate/leachate*

Samplenum **Container ID** **Products**
L11100434-29 895736 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	14-OCT-2011 09:31	RLK	
2	PREP	W1	DIG	14-OCT-2011 10:23	REK	RLK
3	ANALYZ*	DIG	METALS	24-OCT-2011 13:42	PDM	REK
4	STORE	WET	A2	26-OCT-2011 07:53	AZH	JDH
5	STORE	W1	A2	31-OCT-2011 07:18	BLG	BLG

**Sample extract/digestate/leachate*

Samplenum **Container ID** **Products**
L11100434-30 895737 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	14-OCT-2011 09:31	RLK	
2	PREP	W1	DIG	14-OCT-2011 10:23	REK	RLK
3	ANALYZ*	DIG	METALS	24-OCT-2011 13:42	PDM	REK
4	STORE	WET	A2	26-OCT-2011 07:53	AZH	JDH
5	STORE	W1	A2	31-OCT-2011 07:18	BLG	BLG

**Sample extract/digestate/leachate*

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login



Microbac Laboratories Inc.
Internal Chain of Custody Report

Login: L11100434
Account: 2736
Project: 2736.103
Samples: 58
Due Date: 27-OCT-2011

Samplenum **Container ID** **Products**
L11100434-31 895738 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	14-OCT-2011 09:31	RLK	
2	PREP	W1	DIG	14-OCT-2011 10:23	REK	RLK
3	ANALYZ*	DIG	METALS	24-OCT-2011 13:42	PDM	REK
4	STORE	WET	A2	26-OCT-2011 07:53	AZH	JDH
5	STORE	W1	A2	31-OCT-2011 07:16	BLG	BLG

**Sample extract/digestate/leachate*

Samplenum **Container ID** **Products**
L11100434-32 895739 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	14-OCT-2011 09:31	RLK	
2	PREP	W1	DIG	14-OCT-2011 10:23	REK	RLK
3	ANALYZ*	DIG	METALS	24-OCT-2011 13:42	PDM	REK
4	STORE	WET	A2	26-OCT-2011 07:53	AZH	JDH
5	STORE	W1	A2	31-OCT-2011 07:18	BLG	BLG

**Sample extract/digestate/leachate*

Samplenum **Container ID** **Products**
L11100434-33 895740 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	14-OCT-2011 09:31	RLK	
2	PREP	W1	DIG	14-OCT-2011 10:24	REK	RLK
3	ANALYZ*	DIG	METALS	24-OCT-2011 13:42	PDM	REK
4	STORE	WET	A2	26-OCT-2011 07:53	AZH	JDH
5	STORE	W1	A2	31-OCT-2011 07:17	BLG	BLG

**Sample extract/digestate/leachate*

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login



Microbac Laboratories Inc.
Internal Chain of Custody Report

Login: L11100434
Account: 2736
Project: 2736.103
Samples: 58
Due Date: 27-OCT-2011

Samplenum **Container ID** **Products**
L11100434-34 895741 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	WET	14-OCT-2011 09:31	RLK	
2	STORE	WET	A2	26-OCT-2011 07:53	AZH	JDH
3	STORE	W1	A2	31-OCT-2011 07:28	BLG	BLG

Samplenum **Container ID** **Products**
L11100434-35 895742 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	14-OCT-2011 09:31	RLK	
2	STORE	W1	A2	31-OCT-2011 07:27	BLG	BLG

Samplenum **Container ID** **Products**
L11100434-36 895743 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	WET	14-OCT-2011 09:31	RLK	
2	STORE	WET	A2	26-OCT-2011 07:53	AZH	JDH
3	STORE	W1	A2	31-OCT-2011 07:17	BLG	BLG

Samplenum **Container ID** **Products**
L11100434-37 895744 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	14-OCT-2011 09:31	RLK	
2	PREP	W1	DIG	14-OCT-2011 10:24	REK	RLK
3	ANALYZ*	DIG	METALS	18-OCT-2011 11:17	EDL	REK
4	STORE	W1	A2	31-OCT-2011 07:28	BLG	BLG

****Sample extract/digestate/leachate***

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login



Microbac Laboratories Inc.
Internal Chain of Custody Report

Login: L11100434
Account: 2736
Project: 2736.103
Samples: 58
Due Date: 27-OCT-2011

Samplenum **Container ID** **Products**
L11100434-38 895745 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	14-OCT-2011 09:31	RLK	
2	PREP	W1	DIG	14-OCT-2011 10:24	REK	RLK
3	ANALYZ*	DIG	METALS	18-OCT-2011 11:17	EDL	REK
4	STORE	WET	A2	26-OCT-2011 07:54	AZH	JDH
5	STORE	W1	A2	31-OCT-2011 07:16	BLG	BLG

**Sample extract/digestate/leachate*

Samplenum **Container ID** **Products**
L11100434-39 895746 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	14-OCT-2011 09:31	RLK	
2	PREP	W1	DIG	14-OCT-2011 10:24	REK	RLK
3	ANALYZ*	DIG	METALS	18-OCT-2011 11:17	EDL	REK
4	STORE	WET	A2	26-OCT-2011 07:54	AZH	JDH
5	STORE	W1	A2	31-OCT-2011 07:16	BLG	BLG

**Sample extract/digestate/leachate*

Samplenum **Container ID** **Products**
L11100434-40 895747 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	14-OCT-2011 09:31	RLK	
2	STORE	W1	A2	31-OCT-2011 07:26	BLG	BLG

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login



Internal Chain of Custody Report

Login: L11100434

Account: 2736

Project: 2736.103

Samples: 58

Due Date: 27-OCT-2011

Samplenum **Container ID** **Products**
L11100434-41 895748 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	14-OCT-2011 09:31	RLK	
2	PREP	W1	DIG	14-OCT-2011 10:24	REK	RLK
3	ANALYZ*	DIG	METALS	24-OCT-2011 13:42	PDM	REK
4	STORE	WET	A2	26-OCT-2011 07:54	AZH	JDH
5	STORE	W1	A2	31-OCT-2011 07:16	BLG	BLG

**Sample extract/digestate/leachate*

Samplenum **Container ID** **Products**
L11100434-42 895749 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	14-OCT-2011 09:31	RLK	
2	PREP	W1	DIG	14-OCT-2011 10:24	REK	RLK
3	ANALYZ*	DIG	METALS	24-OCT-2011 13:42	PDM	REK
4	STORE	WET	A2	26-OCT-2011 07:54	AZH	JDH
5	STORE	W1	A2	31-OCT-2011 07:17	BLG	BLG

**Sample extract/digestate/leachate*

Samplenum **Container ID** **Products**
L11100434-43 895750 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	14-OCT-2011 09:31	RLK	
2	PREP	W1	DIG	14-OCT-2011 10:24	REK	RLK
3	ANALYZ*	DIG	METALS	24-OCT-2011 13:42	PDM	REK
4	STORE	WET	A2	26-OCT-2011 07:54	AZH	JDH
5	STORE	W1	A2	31-OCT-2011 07:17	BLG	BLG

**Sample extract/digestate/leachate*

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login



Internal Chain of Custody Report

Login: L11100434

Account: 2736

Project: 2736.103

Samples: 58

Due Date: 27-OCT-2011

Samplenum Container ID Products
L11100434-44 895751 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	14-OCT-2011 09:31	RLK	
2	PREP	W1	DIG	14-OCT-2011 10:24	REK	RLK
3	ANALYZ*	DIG	METALS	24-OCT-2011 13:42	PDM	REK
4	STORE	WET	A2	26-OCT-2011 07:54	AZH	JDH
5	STORE	W1	A2	31-OCT-2011 07:18	BLG	BLG

**Sample extract/digestate/leachate*

Samplenum Container ID Products
L11100434-45 895752 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	14-OCT-2011 09:31	RLK	
2	PREP	W1	DIG	14-OCT-2011 10:24	REK	RLK
3	ANALYZ*	DIG	METALS	24-OCT-2011 13:42	PDM	REK
4	STORE	WET	A2	26-OCT-2011 07:54	AZH	JDH
5	STORE	W1	A2	31-OCT-2011 07:16	BLG	BLG

**Sample extract/digestate/leachate*

Samplenum Container ID Products
L11100434-46 895753 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	14-OCT-2011 09:31	RLK	
2	PREP	W1	DIG	14-OCT-2011 10:24	REK	RLK
3	ANALYZ*	DIG	METALS	24-OCT-2011 13:42	PDM	REK
4	STORE	WET	A2	26-OCT-2011 07:54	AZH	JDH
5	STORE	W1	A2	31-OCT-2011 07:17	BLG	BLG

**Sample extract/digestate/leachate*

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login



Internal Chain of Custody Report

Login: L11100434

Account: 2736

Project: 2736.103

Samples: 58

Due Date: 27-OCT-2011

Samplenum **Container ID** **Products**
L11100434-47 895754 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	14-OCT-2011 09:31	RLK	
2	PREP	W1	DIG	14-OCT-2011 10:24	REK	RLK
3	ANALYZ*	DIG	METALS	24-OCT-2011 13:42	PDM	REK
4	STORE	WET	A2	26-OCT-2011 07:54	AZH	JDH
5	STORE	W1	A2	31-OCT-2011 07:18	BLG	BLG

**Sample extract/digestate/leachate*

Samplenum **Container ID** **Products**
L11100434-48 895755 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	14-OCT-2011 09:31	RLK	
2	PREP	W1	DIG	14-OCT-2011 10:24	REK	RLK
3	ANALYZ*	DIG	METALS	24-OCT-2011 13:42	PDM	REK
4	STORE	WET	A2	26-OCT-2011 07:54	AZH	JDH
5	STORE	W1	A2	31-OCT-2011 07:16	BLG	BLG

**Sample extract/digestate/leachate*

Samplenum **Container ID** **Products**
L11100434-49 895756 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	14-OCT-2011 09:31	RLK	
2	PREP	W1	DIG	14-OCT-2011 10:24	REK	RLK
3	ANALYZ*	DIG	METALS	18-OCT-2011 11:17	EDL	REK
4	STORE	WET	A2	26-OCT-2011 07:53	AZH	JDH
5	STORE	W1	A2	31-OCT-2011 07:19	BLG	BLG

**Sample extract/digestate/leachate*

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login



Microbac Laboratories Inc.
Internal Chain of Custody Report

Login: L11100434
Account: 2736
Project: 2736.103
Samples: 58
Due Date: 27-OCT-2011

Samplenum **Container ID** **Products**
L11100434-50 895757 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	14-OCT-2011 09:31	RLK	
2	PREP	W1	DIG	14-OCT-2011 10:24	REK	RLK
3	ANALYZ*	DIG	METALS	18-OCT-2011 11:17	EDL	REK
4	STORE	WET	A2	26-OCT-2011 07:53	AZH	JDH
5	STORE	W1	A2	31-OCT-2011 07:19	BLG	BLG

**Sample extract/digestate/leachate*

Samplenum **Container ID** **Products**
L11100434-51 895758 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	14-OCT-2011 09:31	RLK	
2	PREP	W1	DIG	14-OCT-2011 10:25	REK	RLK
3	ANALYZ*	DIG	METALS	18-OCT-2011 11:17	EDL	REK
4	STORE	WET	A2	26-OCT-2011 07:53	AZH	JDH
5	STORE	W1	A2	31-OCT-2011 07:19	BLG	BLG

**Sample extract/digestate/leachate*

Samplenum **Container ID** **Products**
L11100434-52 895759 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	14-OCT-2011 09:31	RLK	
2	PREP	W1	DIG	14-OCT-2011 10:25	REK	RLK
3	ANALYZ*	DIG	METALS	18-OCT-2011 11:17	EDL	REK
4	STORE	WET	A2	26-OCT-2011 07:53	AZH	JDH
5	STORE	W1	A2	31-OCT-2011 07:18	BLG	BLG

**Sample extract/digestate/leachate*

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login



Microbac Laboratories Inc.
Internal Chain of Custody Report

Login: L11100434
Account: 2736
Project: 2736.103
Samples: 58
Due Date: 27-OCT-2011

Samplenum **Container ID** **Products**
L11100434-53 895760 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	14-OCT-2011 09:31	RLK	
2	PREP	W1	DIG	14-OCT-2011 10:25	REK	RLK
3	ANALYZ*	DIG	METALS	18-OCT-2011 11:17	EDL	REK
4	STORE	WET	A2	26-OCT-2011 07:53	AZH	JDH
5	STORE	W1	A2	31-OCT-2011 07:19	BLG	BLG

**Sample extract/digestate/leachate*

Samplenum **Container ID** **Products**
L11100434-54 895761 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	14-OCT-2011 09:31	RLK	
2	PREP	W1	DIG	14-OCT-2011 10:25	REK	RLK
3	ANALYZ*	DIG	METALS	18-OCT-2011 11:17	EDL	REK
4	STORE	WET	A2	26-OCT-2011 07:53	AZH	JDH
5	STORE	W1	A2	31-OCT-2011 07:18	BLG	BLG

**Sample extract/digestate/leachate*

Samplenum **Container ID** **Products**
L11100434-55 895762 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	14-OCT-2011 09:31	RLK	
2	PREP	W1	DIG	14-OCT-2011 10:25	REK	RLK
3	ANALYZ*	DIG	METALS	18-OCT-2011 11:17	EDL	REK
4	STORE	WET	A2	26-OCT-2011 07:53	AZH	JDH
5	STORE	W1	A2	31-OCT-2011 07:19	BLG	BLG

**Sample extract/digestate/leachate*

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login



Microbac Laboratories Inc.
Internal Chain of Custody Report

Login: L11100434
Account: 2736
Project: 2736.103
Samples: 58
Due Date: 27-OCT-2011

Samplenum **Container ID** **Products**
L11100434-56 895763 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	14-OCT-2011 09:31	RLK	
2	PREP	W1	DIG	14-OCT-2011 10:25	REK	RLK
3	ANALYZ*	DIG	METALS	18-OCT-2011 11:17	EDL	REK
4	STORE	WET	A2	26-OCT-2011 07:53	AZH	JDH
5	STORE	W1	A2	31-OCT-2011 07:19	BLG	BLG

**Sample extract/digestate/leachate*

Samplenum **Container ID** **Products**
L11100434-57 895764 PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	14-OCT-2011 09:31	RLK	
2	PREP	W1	DIG	14-OCT-2011 10:25	REK	RLK
3	ANALYZ*	DIG	METALS	18-OCT-2011 11:17	EDL	REK
4	STORE	WET	A2	26-OCT-2011 07:53	AZH	JDH
5	STORE	W1	A2	31-OCT-2011 07:19	BLG	BLG

**Sample extract/digestate/leachate*

Samplenum **Container ID** **Products**
L11100434-58 895765 AS-MS CD-MS

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	14-OCT-2011 09:31	RLK	
2	PREP	W1	DIG	14-OCT-2011 10:25	REK	RLK
3	STORE	DIG	A2	18-OCT-2011 12:37	RLK	BRG
4	ANALYZ*	DIG	METALS	25-OCT-2011 13:21	JYH	REK

**Sample extract/digestate/leachate*

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login



NELAP Addendum - March 4, 2011

Non-NELAP LIMS Product and Description

The following is a list of those tests that are not included in the Microbac – OVL NELAP Scope of Accreditation:

Heat of Combustion (BTU)
Total Halide by Bomb Combustion (TX)
Particle Sizing - 200 Mesh (PS200)
Sulfate (SO₄) - 9038
Specific Gravity/Density (SPGRAV)
Total Residual Chlorine (CL-TRL)
Total Volatile Solids (all forms) (TVS)
Total Coliform Bacteria (all methods)
Fecal Coliform Bacteria (all methods)
Sulfite (SO₃)
Thiodiglycol (TDG-LCMS)

NELAP Accreditation by Laboratory SOP

NONPOTABLE WATER

OVL HPLC02/HPLC-UV

Nitroglycerin
Nitroguanidine
Acetic acid
Butyric acid
Lactic acid
Propionic acid
Pyruvic acid

OVL KNITRO-C-WUV-VIS

Nitrocellulose

OVL MSS01/GC-MS

1,4-Phenylenediamine
1-Methylnaphthalene
1,4-Dioxane
Atrazine
Benzaldehyde
Biphenyl
Caprolactam
Hexamethylphosphoramide (HMPA)
Pentachlorobenzene
Pentachloroethane

NELAP Accreditation by Laboratory SOP

NONPOTABLE WATER

OVL MSV01/GC-MS

1, 1, 2-Trichloro-1,2,2-trifluoroethane
1,3-Butadiene
Cyclohexane
Cyclohexanone
Dimethyl disulfide
Dimethylsulfide
Ethyl-t-butylether (ETBE)
Isoprene
Methylacetate
Methylcyclohexane
T-amylmethylether (TAME)
Tetrahydrofuran (THF)

OVL RSK01/GC-FID

Isobutane
n-Butane
Propane
Propylene
Propyne

OVL HPLC07/HPLC-MS-MS

Hexamethylphosphoramide (XMPA-LCMS)

SOLID AND HAZARDOUS CHEMICALS

OVL HPLCOS-HPLC-UV

Nitroguanidine

OVL KNITRO-C-S/UV-VIS

Nitrocellulose

OVL MSS01/GC-MS

1-Methylnaphthalene
Benzaldehyde
Biphenyl
Caprolactam
Pentachloroethane

NELAP Accreditation by Laboratory SOP

SOLID AND HAZARDOUS CHEMICALS

OVL MSV01/GC-MS

1.3-Butadiene
Cyclohexane
Cyclohexanone
Dimethyl disulfide
Dimethylsulfide
Ethyl-t-butylether (ETBE)
Isoprene
Methylacetate
Methylcyclohexane
n-Hexane
T-amylmethylether (TAME)



Laboratory Report Number: L11110916

Shane Lowe
CH2MHILL, Inc
CH2MHILL
Richmond Heights, MO 63117

Please find enclosed the analytical results for the samples you submitted to Microbac Laboratories. Review and compilation of your report was completed by Microbac's Ohio Valley Division (OVD). If you have any questions, comments, or require further assistance regarding this report, please contact your service representative listed below.

This report was reviewed on December 12 2011

Kathy Albertson – Team Chemist/Data Specialist
(740) 373-4071
Kathy.Albertson@microbac.com

I certify that all test results meet all of the requirements of the accrediting authority listed below. All results for soil samples are reported on a 'dry-weight' basis unless specified otherwise. Analytical results for water and wastes are reported on a 'as received' basis unless specified otherwise. A statement of uncertainty for each analysis is available upon request. This laboratory report shall not be reproduced, except in full, without the written approval of Microbac Laboratories. The reported results are related only to the samples analyzed as received.

This report was certified on December 12 2011

David Vandenberg – Managing Director

State of Origin: NY
Accrediting Authority: Department of Health ID:10861
QAPP: WATERLOO



Record of Sample Receipt and Inspection

Comments/Discrepancies

This is the record of the shipment conditions and the inspection records for the samples received and reported as a sample delivery group (SDG). All of the samples were inspected and observed to conform to our receipt policies, except as noted below.

There were no discrepancies.

Discrepancy	Resolution

Coolers

Cooler #	Temperature Gun	Temperature	COC #	Airbill #
0013939	G	0.0		1002239524360004575000868237322070

Inspection Checklist

#	Question	Result
1	Were shipping coolers sealed?	Yes
2	Were custody seals intact?	Yes
3	Were cooler temperatures in range of 0-6°?	Yes
4	Was ice present?	Yes
5	Were COC's received/information complete/signed and dated?	Yes
6	Were sample containers intact and match COC?	Yes
7	Were sample labels intact and match COC?	Yes
8	Were the correct containers and volumes received?	Yes
9	Were samples received within EPA hold times?	Yes
10	Were correct preservatives used? (water only)	Yes
11	Were pH ranges acceptable? (voa's excluded)	Yes
12	Were VOA samples free of headspace (less than 6mm)?	NA

Samples Received

Client ID	Laboratory ID	Date Collected	Date Received
DE-35A-11292011	L11110916-01	11/29/2011 11:10	11/30/2011 11:14
DE-35B-11292011	L11110916-02	11/29/2011 11:15	11/30/2011 11:14
DE-35C-11292011	L11110916-03	11/29/2011 11:20	11/30/2011 11:14
DE-35D-11292011	L11110916-04	11/29/2011 11:25	11/30/2011 11:14
DE-36A-11292011	L11110916-05	11/29/2011 14:00	11/30/2011 11:14
DE-36B-11292011	L11110916-06	11/29/2011 14:05	11/30/2011 11:14
DE-36C-11292011	L11110916-07	11/29/2011 14:10	11/30/2011 11:14
DE-36D-11292011	L11110916-08	11/29/2011 14:15	11/30/2011 11:14
DE-36E-11292011	L11110916-09	11/29/2011 14:20	11/30/2011 11:14
DE-37A-11292011	L11110916-10	11/29/2011 16:05	11/30/2011 11:14
DE-37B-11292011	L11110916-11	11/29/2011 16:10	11/30/2011 11:14
DE-37C-11292011	L11110916-12	11/29/2011 16:15	11/30/2011 11:14
DE-37D-11292011	L11110916-13	11/29/2011 16:20	11/30/2011 11:14
DE-37E-11292011	L11110916-14	11/29/2011 16:25	11/30/2011 11:14
DE-37E-11292011-MS	L11110916-15	11/29/2011 16:25	11/30/2011 11:14
DE-37E-11292011-MSD	L11110916-16	11/29/2011 16:25	11/30/2011 11:14
DUP-SOIL-11292011	L11110916-17	11/29/2011 00:01	11/30/2011 11:14
EB-SOIL-11292011	L11110916-18	11/29/2011 17:00	11/30/2011 11:14



Login Number: L11110916
Department: Metals
Analyst: Erin Long
Analyst #2: Kim Rhodes

METHOD

Preparation: SW-846 3051/3005

Analysis: SW-846 6010

HOLDING TIMES

Sample Preparation: All holding times were met.

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial Calibration: All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Interference Check Standards: All acceptance criteria were met.

Continuing Calibration Verification: All acceptance criteria were met.

Continuing Calibration Blank: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Serial Dilution/Post Digestion Spikes: WG383433 - All acceptance criteria were met.

WG383504 - All acceptance criteria were met.

Matrix Spikes: WG383433 - Sample 14 was chosen by the client for MS/MSD analysis. Samples 15(MS) and 16(MSD) yielded a noncompliant recovery for arsenic.

SAMPLES

Samples: All acceptance criteria were met.

Narrative ID: 39329

Approved By: Sheri Pfalzgraf

A handwritten signature in black ink that reads "Sheri L. Pfalzgraf".

The following report lists the analytes that were manually integrated.

Reason Code Descriptions

Code	Description
1	Data system fails to select the correct peak
2	Data system splits the peak incorrectly or integrates a false peak as a rider peak
3	Improperly integrated isomers and/or coeluting compounds
4	System established incorrect baseline
5	Miscellaneous

Report Number: L11110916

Report Date : December 12, 2011

Sample Number: L11110916-01 PrePrep Method: NONE Instrument: ICP-THERMO2
 Client ID: DE-35A-11292011 Prep Method: 3051A Prep Date: 11/30/2011 13:53
 Matrix: Soil Analytical Method: 6010B Cal Date: 12/01/2011 11:20
 Workgroup Number: WG383433 Analyst: EDL Run Date: 12/01/2011 12:02
 Collect Date: 11/29/2011 11:10 Dilution: 1 File ID: T2.120111.120243
 Sample Tag: 01 Units: mg/kg Percent Solid: 87.1

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	24.0		4.08	2.04
Cadmium, Total	7440-43-9	0.582		0.408	0.204

Sample Number: L11110916-01 PrePrep Method: NONE Instrument: BAL001
 Client ID: DE-35A-11292011 Prep Method: D2216-90 Prep Date: 12/01/2011 11:32
 Matrix: Soil Analytical Method: D2216-90 Cal Date: _____
 Workgroup Number: WG383410 Analyst: JDH Run Date: 12/01/2011 11:32
 Collect Date: 11/29/2011 11:10 Dilution: 1 File ID: B1.383410-0133
 Sample Tag: 01 Units: weight %

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	87.1		1.00	1.00

Sample Number: L11110916-02 PrePrep Method: NONE Instrument: ICP-THERMO2
 Client ID: DE-35B-11292011 Prep Method: 3051A Prep Date: 11/30/2011 13:53
 Matrix: Soil Analytical Method: 6010B Cal Date: 12/01/2011 11:20
 Workgroup Number: WG383433 Analyst: EDL Run Date: 12/01/2011 12:22
 Collect Date: 11/29/2011 11:15 Dilution: 1 File ID: T2.120111.122237
 Sample Tag: 01 Units: mg/kg Percent Solid: 86.9

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	47.6		4.22	2.11
Cadmium, Total	7440-43-9	1.05		0.422	0.211

Sample Number: L11110916-02 PrePrep Method: NONE Instrument: BAL001
 Client ID: DE-35B-11292011 Prep Method: D2216-90 Prep Date: 12/01/2011 11:32
 Matrix: Soil Analytical Method: D2216-90 Cal Date: _____
 Workgroup Number: WG383410 Analyst: JDH Run Date: 12/01/2011 11:32
 Collect Date: 11/29/2011 11:15 Dilution: 1 File ID: B1.383410-0134
 Sample Tag: 01 Units: weight %

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	86.9		1.00	1.00

Report Number: L11110916

Report Date : December 12, 2011

Sample Number: L11110916-03 PrePrep Method: NONE Instrument: ICP-THERMO2
 Client ID: DE-35C-11292011 Prep Method: 3051A Prep Date: 11/30/2011 13:54
 Matrix: Soil Analytical Method: 6010B Cal Date: 12/01/2011 11:20
 Workgroup Number: WG383433 Analyst: EDL Run Date: 12/01/2011 12:25
 Collect Date: 11/29/2011 11:20 Dilution: 1 File ID: T2.120111.122555
 Sample Tag: 01 Units: mg/kg Percent Solid: 88.8

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	33.6		4.00	2.00
Cadmium, Total	7440-43-9	0.724		0.400	0.200

Sample Number: L11110916-03 PrePrep Method: NONE Instrument: BAL001
 Client ID: DE-35C-11292011 Prep Method: D2216-90 Prep Date: 12/01/2011 11:32
 Matrix: Soil Analytical Method: D2216-90 Cal Date: _____
 Workgroup Number: WG383410 Analyst: JDH Run Date: 12/01/2011 11:32
 Collect Date: 11/29/2011 11:20 Dilution: 1 File ID: B1.383410-0135
 Sample Tag: 01 Units: weight %

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	88.8		1.00	1.00

Sample Number: L11110916-04 PrePrep Method: NONE Instrument: ICP-THERMO2
 Client ID: DE-35D-11292011 Prep Method: 3051A Prep Date: 11/30/2011 13:55
 Matrix: Soil Analytical Method: 6010B Cal Date: 12/01/2011 11:20
 Workgroup Number: WG383433 Analyst: EDL Run Date: 12/01/2011 12:29
 Collect Date: 11/29/2011 11:25 Dilution: 1 File ID: T2.120111.122912
 Sample Tag: 01 Units: mg/kg Percent Solid: 90.8

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	13.8		4.09	2.04
Cadmium, Total	7440-43-9	0.303	J	0.409	0.204

J Estimated value; the analyte concentration was less than the RL/LOQ.

Sample Number: L11110916-04 PrePrep Method: NONE Instrument: BAL001
 Client ID: DE-35D-11292011 Prep Method: D2216-90 Prep Date: 12/01/2011 11:32
 Matrix: Soil Analytical Method: D2216-90 Cal Date: _____
 Workgroup Number: WG383410 Analyst: JDH Run Date: 12/01/2011 11:32
 Collect Date: 11/29/2011 11:25 Dilution: 1 File ID: B1.383410-0136
 Sample Tag: 01 Units: weight %

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	90.8		1.00	1.00



Report Number: L11110916

Report Date : December 12, 2011

Sample Number: L11110916-05
 Client ID: DE-36A-11292011
 Matrix: Soil
 Workgroup Number: WG383433
 Collect Date: 11/29/2011 14:00
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: EDL
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 11/30/2011 13:55
 Cal Date: 12/01/2011 11:13
 Run Date: 12/01/2011 12:32
 File ID: T2.120111.123231
 Percent Solid: 70.9

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	13.6		4.97	2.48
Cadmium, Total	7440-43-9	1.40		0.497	0.248

Sample Number: L11110916-05
 Client ID: DE-36A-11292011
 Matrix: Soil
 Workgroup Number: WG383410
 Collect Date: 11/29/2011 14:00
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: D2216-90
 Analytical Method: D2216-90
 Analyst: JDH
 Dilution: 1
 Units: weight %

Instrument: BAL001
 Prep Date: 12/01/2011 11:32
 Cal Date:
 Run Date: 12/01/2011 11:32
 File ID: B1.383410-0137

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	70.9		1.00	1.00

Sample Number: L11110916-06
 Client ID: DE-36B-11292011
 Matrix: Soil
 Workgroup Number: WG383433
 Collect Date: 11/29/2011 14:05
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: EDL
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 11/30/2011 13:56
 Cal Date: 12/01/2011 11:17
 Run Date: 12/01/2011 12:35
 File ID: T2.120111.123550
 Percent Solid: 87.5

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	23.6		4.17	2.09
Cadmium, Total	7440-43-9	0.886		0.417	0.209

Sample Number: L11110916-06
 Client ID: DE-36B-11292011
 Matrix: Soil
 Workgroup Number: WG383410
 Collect Date: 11/29/2011 14:05
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: D2216-90
 Analytical Method: D2216-90
 Analyst: JDH
 Dilution: 1
 Units: weight %

Instrument: BAL001
 Prep Date: 12/01/2011 11:32
 Cal Date:
 Run Date: 12/01/2011 11:32
 File ID: B1.383410-0138

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	87.5		1.00	1.00



Report Number: L11110916

Report Date : December 12, 2011

Sample Number: L11110916-07 PrePrep Method: NONE Instrument: ICP-THERMO2
 Client ID: DE-36C-11292011 Prep Method: 3051A Prep Date: 11/30/2011 13:57
 Matrix: Soil Analytical Method: 6010B Cal Date: 12/01/2011 11:20
 Workgroup Number: WG383433 Analyst: EDL Run Date: 12/01/2011 12:39
 Collect Date: 11/29/2011 14:10 Dilution: 1 File ID: T2.120111.123910
 Sample Tag: 01 Units: mg/kg Percent Solid: 90.6

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	14.2		3.70	1.85
Cadmium, Total	7440-43-9	0.295	J	0.370	0.185

J Estimated value; the analyte concentration was less than the RL/LOQ.

Sample Number: L11110916-07 PrePrep Method: NONE Instrument: BAL001
 Client ID: DE-36C-11292011 Prep Method: D2216-90 Prep Date: 12/01/2011 11:32
 Matrix: Soil Analytical Method: D2216-90 Cal Date: _____
 Workgroup Number: WG383410 Analyst: JDH Run Date: 12/01/2011 11:32
 Collect Date: 11/29/2011 14:10 Dilution: 1 File ID: B1.383410-0139
 Sample Tag: 01 Units: weight %

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	90.6		1.00	1.00

Sample Number: L11110916-08 PrePrep Method: NONE Instrument: ICP-THERMO2
 Client ID: DE-36D-11292011 Prep Method: 3051A Prep Date: 11/30/2011 13:58
 Matrix: Soil Analytical Method: 6010B Cal Date: 12/01/2011 11:20
 Workgroup Number: WG383433 Analyst: EDL Run Date: 12/01/2011 12:42
 Collect Date: 11/29/2011 14:15 Dilution: 1 File ID: T2.120111.124228
 Sample Tag: 01 Units: mg/kg Percent Solid: 87.4

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	9.20		3.97	1.98
Cadmium, Total	7440-43-9	0.382	J	0.397	0.198

J Estimated value; the analyte concentration was less than the RL/LOQ.

Sample Number: L11110916-08 PrePrep Method: NONE Instrument: BAL001
 Client ID: DE-36D-11292011 Prep Method: D2216-90 Prep Date: 12/01/2011 11:32
 Matrix: Soil Analytical Method: D2216-90 Cal Date: _____
 Workgroup Number: WG383410 Analyst: JDH Run Date: 12/01/2011 11:32
 Collect Date: 11/29/2011 14:15 Dilution: 1 File ID: B1.383410-0140
 Sample Tag: 01 Units: weight %

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	87.4		1.00	1.00

Report Number: L11110916

Report Date : December 12, 2011

Sample Number: L11110916-09 PrePrep Method: NONE Instrument: ICP-THERMO2
 Client ID: DE-36E-11292011 Prep Method: 3051A Prep Date: 11/30/2011 13:58
 Matrix: Soil Analytical Method: 6010B Cal Date: 12/01/2011 11:20
 Workgroup Number: WG383433 Analyst: EDL Run Date: 12/01/2011 12:45
 Collect Date: 11/29/2011 14:20 Dilution: 1 File ID: T2.120111.124546
 Sample Tag: 01 Units: mg/kg Percent Solid: 95.7

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	2.98	J	3.87	1.93
Cadmium, Total	7440-43-9		U	0.387	0.193

U Not detected at or above adjusted sample detection limit.

J Estimated value; the analyte concentration was less than the RL/LOQ.

Sample Number: L11110916-09 PrePrep Method: NONE Instrument: BAL001
 Client ID: DE-36E-11292011 Prep Method: D2216-90 Prep Date: 12/01/2011 11:32
 Matrix: Soil Analytical Method: D2216-90 Cal Date: _____
 Workgroup Number: WG383410 Analyst: JDH Run Date: 12/01/2011 11:32
 Collect Date: 11/29/2011 14:20 Dilution: 1 File ID: B1.383410-0141
 Sample Tag: 01 Units: weight %

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	95.7		1.00	1.00

Sample Number: L11110916-10 PrePrep Method: NONE Instrument: ICP-THERMO2
 Client ID: DE-37A-11292011 Prep Method: 3051A Prep Date: 11/30/2011 13:59
 Matrix: Soil Analytical Method: 6010B Cal Date: 12/01/2011 11:20
 Workgroup Number: WG383433 Analyst: EDL Run Date: 12/01/2011 12:49
 Collect Date: 11/29/2011 16:05 Dilution: 1 File ID: T2.120111.124905
 Sample Tag: 01 Units: mg/kg Percent Solid: 70.6

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	20.3		5.05	2.52
Cadmium, Total	7440-43-9	1.66		0.505	0.252

Sample Number: L11110916-10 PrePrep Method: NONE Instrument: BAL001
 Client ID: DE-37A-11292011 Prep Method: D2216-90 Prep Date: 12/01/2011 11:32
 Matrix: Soil Analytical Method: D2216-90 Cal Date: _____
 Workgroup Number: WG383410 Analyst: JDH Run Date: 12/01/2011 11:32
 Collect Date: 11/29/2011 16:05 Dilution: 1 File ID: B1.383410-0142
 Sample Tag: 01 Units: weight %

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	70.6		1.00	1.00

Report Number: L11110916

Report Date : December 12, 2011

Sample Number: L11110916-11 PrePrep Method: NONE Instrument: ICP-THERMO2
 Client ID: DE-37B-11292011 Prep Method: 3051A Prep Date: 11/30/2011 13:59
 Matrix: Soil Analytical Method: 6010B Cal Date: 12/01/2011 11:20
 Workgroup Number: WG383433 Analyst: EDL Run Date: 12/01/2011 12:52
 Collect Date: 11/29/2011 16:10 Dilution: 1 File ID: T2.120111.125224
 Sample Tag: 01 Units: mg/kg Percent Solid: 86.6

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	23.7		4.09	2.04
Cadmium, Total	7440-43-9	0.919		0.409	0.204

Sample Number: L11110916-11 PrePrep Method: NONE Instrument: BAL001
 Client ID: DE-37B-11292011 Prep Method: D2216-90 Prep Date: 12/01/2011 11:32
 Matrix: Soil Analytical Method: D2216-90 Cal Date: _____
 Workgroup Number: WG383410 Analyst: JDH Run Date: 12/01/2011 11:32
 Collect Date: 11/29/2011 16:10 Dilution: 1 File ID: B1.383410-0143
 Sample Tag: 01 Units: weight %

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	86.6		1.00	1.00

Sample Number: L11110916-12 PrePrep Method: NONE Instrument: ICP-THERMO2
 Client ID: DE-37C-11292011 Prep Method: 3051A Prep Date: 11/30/2011 14:00
 Matrix: Soil Analytical Method: 6010B Cal Date: 12/01/2011 11:20
 Workgroup Number: WG383433 Analyst: EDL Run Date: 12/01/2011 13:02
 Collect Date: 11/29/2011 16:15 Dilution: 1 File ID: T2.120111.130225
 Sample Tag: 01 Units: mg/kg Percent Solid: 89.3

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	3.50	J	4.25	2.12
Cadmium, Total	7440-43-9	1.09		0.425	0.212

J Estimated value; the analyte concentration was less than the RL/LOQ.

Sample Number: L11110916-12 PrePrep Method: NONE Instrument: BAL001
 Client ID: DE-37C-11292011 Prep Method: D2216-90 Prep Date: 12/01/2011 11:32
 Matrix: Soil Analytical Method: D2216-90 Cal Date: _____
 Workgroup Number: WG383410 Analyst: JDH Run Date: 12/01/2011 11:32
 Collect Date: 11/29/2011 16:15 Dilution: 1 File ID: B1.383410-0144
 Sample Tag: 01 Units: weight %

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	89.3		1.00	1.00

Report Number: L11110916

Report Date : December 12, 2011

Sample Number: L11110916-13 PrePrep Method: NONE Instrument: ICP-THERMO2
 Client ID: DE-37D-11292011 Prep Method: 3051A Prep Date: 11/30/2011 14:01
 Matrix: Soil Analytical Method: 6010B Cal Date: 12/01/2011 11:20
 Workgroup Number: WG383433 Analyst: EDL Run Date: 12/01/2011 13:05
 Collect Date: 11/29/2011 16:20 Dilution: 1 File ID: T2.120111.130544
 Sample Tag: 01 Units: mg/kg Percent Solid: 91.3

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	8.64		4.13	2.06
Cadmium, Total	7440-43-9	0.372	J	0.413	0.206

J Estimated value; the analyte concentration was less than the RL/LOQ.

Sample Number: L11110916-13 PrePrep Method: NONE Instrument: BAL001
 Client ID: DE-37D-11292011 Prep Method: D2216-90 Prep Date: 12/01/2011 11:32
 Matrix: Soil Analytical Method: D2216-90 Cal Date: _____
 Workgroup Number: WG383410 Analyst: JDH Run Date: 12/01/2011 11:32
 Collect Date: 11/29/2011 16:20 Dilution: 1 File ID: B1.383410-0145
 Sample Tag: 01 Units: weight %

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	91.3		1.00	1.00

Sample Number: L11110916-14 PrePrep Method: NONE Instrument: ICP-THERMO2
 Client ID: DE-37E-11292011 Prep Method: 3051A Prep Date: 11/30/2011 14:02
 Matrix: Soil Analytical Method: 6010B Cal Date: 12/01/2011 11:20
 Workgroup Number: WG383433 Analyst: EDL Run Date: 12/01/2011 13:09
 Collect Date: 11/29/2011 16:25 Dilution: 1 File ID: T2.120111.130903
 Sample Tag: 01 Units: mg/kg Percent Solid: 91.4

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	3.68	J	4.13	2.06
Cadmium, Total	7440-43-9	0.237	J	0.413	0.206

J Estimated value; the analyte concentration was less than the RL/LOQ.

Sample Number: L11110916-14 PrePrep Method: NONE Instrument: BAL001
 Client ID: DE-37E-11292011 Prep Method: D2216-90 Prep Date: 12/01/2011 11:32
 Matrix: Soil Analytical Method: D2216-90 Cal Date: _____
 Workgroup Number: WG383410 Analyst: JDH Run Date: 12/01/2011 11:32
 Collect Date: 11/29/2011 16:25 Dilution: 1 File ID: B1.383410-0146
 Sample Tag: 01 Units: weight %

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	91.4		1.00	1.00

Report Number: L11110916
 Report Date : December 12, 2011

Sample Number: L11110916-15 PrePrep Method: NONE Instrument: ICP-THERMO2
 Client ID: DE-37E-11292011-MS Prep Method: 3051A Prep Date: 11/30/2011 13:48
 Matrix: Soil Analytical Method: 6010B Cal Date: 12/01/2011 11:20
 Workgroup Number: WG383433 Analyst: EDL Run Date: 12/01/2011 13:12
 Collect Date: 11/29/2011 16:25 Dilution: 1 File ID: T2.120111.131223
 Sample Tag: 01 Units: mg/kg Percent Solid: 91.4

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	10.1		4.13	2.06
Cadmium, Total	7440-43-9	1.07		0.413	0.206

Sample Number: L11110916-15 PrePrep Method: NONE Instrument: BAL001
 Client ID: DE-37E-11292011-MS Prep Method: D2216-90 Prep Date: 12/01/2011 11:32
 Matrix: Soil Analytical Method: D2216-90 Cal Date: Run Date: 12/01/2011 11:32
 Workgroup Number: WG383410 Analyst: JDH File ID: B1.383410-0147
 Collect Date: 11/29/2011 16:25 Dilution: 1
 Sample Tag: 01 Units: weight %

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	91.4		1.00	1.00

Sample Number: L11110916-16 PrePrep Method: NONE Instrument: ICP-THERMO2
 Client ID: DE-37E-11292011-MSD Prep Method: 3051A Prep Date: 11/30/2011 13:48
 Matrix: Soil Analytical Method: 6010B Cal Date: 12/01/2011 11:20
 Workgroup Number: WG383433 Analyst: EDL Run Date: 12/01/2011 13:15
 Collect Date: 11/29/2011 16:25 Dilution: 1 File ID: T2.120111.131539
 Sample Tag: 01 Units: mg/kg Percent Solid: 91.4

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	11.3		4.13	2.06
Cadmium, Total	7440-43-9	1.17		0.413	0.206

Sample Number: L11110916-16 PrePrep Method: NONE Instrument: BAL001
 Client ID: DE-37E-11292011-MSD Prep Method: D2216-90 Prep Date: 12/01/2011 11:32
 Matrix: Soil Analytical Method: D2216-90 Cal Date: Run Date: 12/01/2011 11:32
 Workgroup Number: WG383410 Analyst: JDH File ID: B1.383410-0148
 Collect Date: 11/29/2011 16:25 Dilution: 1
 Sample Tag: 01 Units: weight %

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	91.4		1.00	1.00



Report Number: L11110916
 Report Date : December 12, 2011

Sample Number: L11110916-17 PrePrep Method: NONE Instrument: ICP-THERMO2
 Client ID: DUP-SOIL-11292011 Prep Method: 3051A Prep Date: 11/30/2011 14:04
 Matrix: Soil Analytical Method: 6010B Cal Date: 12/01/2011 11:20
 Workgroup Number: WG383433 Analyst: EDL Run Date: 12/01/2011 13:18
 Collect Date: 11/29/2011 00:01 Dilution: 1 File ID: T2.120111.131855
 Sample Tag: 01 Units: mg/kg Percent Solid: 89.2

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	22.1		3.78	1.89
Cadmium, Total	7440-43-9	0.335	J	0.378	0.189

J Estimated value; the analyte concentration was less than the RL/LOQ.

Sample Number: L11110916-17 PrePrep Method: NONE Instrument: BAL001
 Client ID: DUP-SOIL-11292011 Prep Method: D2216-90 Prep Date: 12/01/2011 11:32
 Matrix: Soil Analytical Method: D2216-90 Cal Date: Run Date: 12/01/2011 11:32
 Workgroup Number: WG383410 Analyst: JDH File ID: B1.383410-0149
 Collect Date: 11/29/2011 00:01 Dilution: 1
 Sample Tag: 01 Units: weight %

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	89.2		1.00	1.00

Sample Number: L11110916-18 PrePrep Method: NONE Instrument: PE-ICP2
 Client ID: EB-SOIL-11292011 Prep Method: 3005A Prep Date: 12/01/2011 12:34
 Matrix: Water Analytical Method: 6010B Cal Date: 12/01/2011 09:17
 Workgroup Number: WG383504 Analyst: KHR Run Date: 12/01/2011 14:05
 Collect Date: 11/29/2011 17:00 Dilution: 1 File ID: P2.120111.140559
 Sample Tag: 01 Units: mg/L

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2		U	0.0100	0.00500
Cadmium, Total	7440-43-9		U	0.000500	0.000250

U Not detected at or above adjusted sample detection limit.



2.1 Metals Data

2.1.1 Metals I C P Data

2.1.1.1 Summary Data



Login Number: L11110916
Department: Metals
Analyst: Erin Long
Analyst #2: Kim Rhodes

METHOD

Preparation: SW-846 3051/3005

Analysis: SW-846 6010

HOLDING TIMES

Sample Preparation: All holding times were met.

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial Calibration: All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Interference Check Standards: All acceptance criteria were met.

Continuing Calibration Verification: All acceptance criteria were met.

Continuing Calibration Blank: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Serial Dilution/Post Digestion Spikes: WG383433 - All acceptance criteria were met.

WG383504 - All acceptance criteria were met.

Matrix Spikes: WG383433 - Sample 14 was chosen by the client for MS/MSD analysis. Samples 15(MS) and 16(MSD) yielded a noncompliant recovery for arsenic.

SAMPLES

Samples: All acceptance criteria were met.

Narrative ID: 39329

Approved By: Sheri Pfalzgraf

A handwritten signature in black ink that reads "Sheri L. Pfalzgraf".

LABORATORY REPORT

L11110916

12/12/11 13:06

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta, OH 45750
(740) 373-4071

For

Account Name: CH2MHILL, Inc
CH2MHILL
1034 S. Brentwood Blvd, Suite 2300
Richmond Heights, MO 63117
Attention: Shane Lowe

Project Number: 2736.103
Project: DOW WATERLOO Soil & GW
Site: WATERLOO
Invoice Number: 621585
P.O. Number: 416903-1

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
DE-35A-11292011	L11110916-01	6010B	1	30-NOV-11
DE-35B-11292011	L11110916-02	6010B	1	30-NOV-11
DE-35C-11292011	L11110916-03	6010B	1	30-NOV-11
DE-35D-11292011	L11110916-04	6010B	1	30-NOV-11
DE-36A-11292011	L11110916-05	6010B	1	30-NOV-11
DE-36B-11292011	L11110916-06	6010B	1	30-NOV-11
DE-36C-11292011	L11110916-07	6010B	1	30-NOV-11
DE-36D-11292011	L11110916-08	6010B	1	30-NOV-11
DE-36E-11292011	L11110916-09	6010B	1	30-NOV-11
DE-37A-11292011	L11110916-10	6010B	1	30-NOV-11
DE-37B-11292011	L11110916-11	6010B	1	30-NOV-11
DE-37C-11292011	L11110916-12	6010B	1	30-NOV-11
DE-37D-11292011	L11110916-13	6010B	1	30-NOV-11
DE-37E-11292011	L11110916-14	6010B	1	30-NOV-11
DE-37E-11292011-MS	L11110916-15	6010B	1	30-NOV-11
DE-37E-11292011-MSD	L11110916-16	6010B	1	30-NOV-11
DUP-SOIL-11292011	L11110916-17	6010B	1	30-NOV-11
EB-SOIL-11292011	L11110916-18	6010B	1	30-NOV-11

L1_A_PROD - Modified 03/06/2008
PDF File ID: 2251081
Report generated: 12/12/2011 13:06

1 OF 1



Report Number: L11110916

Report Date : December 12, 2011

Sample Number: L11110916-01
 Client ID: DE-35A-11292011
 Matrix: Soil
 Workgroup Number: WG383433
 Collect Date: 11/29/2011 11:10
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: EDL
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 11/30/2011 13:53
 Cal Date: 12/01/2011 11:20
 Run Date: 12/01/2011 12:02
 File ID: T2.120111.120243
 Percent Solid: 87.1

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	24.0		4.08	2.04
Cadmium, Total	7440-43-9	0.582		0.408	0.204



Report Number: L11110916

Report Date : December 12, 2011

Sample Number: L11110916-02
 Client ID: DE-35E-11292011
 Matrix: Soil
 Workgroup Number: WG383433
 Collect Date: 11/29/2011 11:15
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: EDL
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 11/30/2011 13:53
 Cal Date: 12/01/2011 11:20
 Run Date: 12/01/2011 12:22
 File ID: T2.120111.122237
 Percent Solid: 86.9

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	47.6		4.22	2.11
Cadmium, Total	7440-43-9	1.05		0.422	0.211



Report Number: L11110916
 Report Date : December 12, 2011

Sample Number: L11110916-03
 Client ID: DE-35C-11292011
 Matrix: Soil
 Workgroup Number: WG383433
 Collect Date: 11/29/2011 11:20
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: EDL
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 11/30/2011 13:54
 Cal Date: 12/01/2011 11:20
 Run Date: 12/01/2011 12:25
 File ID: T2.120111.122555
 Percent Solid: 88.8

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	33.6		4.00	2.00
Cadmium, Total	7440-43-9	0.724		0.400	0.200



Report Number: L11110916
 Report Date : December 12, 2011

Sample Number: L11110916-04	PrePrep Method: NONE	Instrument: ICP-THERMO2
Client ID: DE-35D-11292011	Prep Method: 3051A	Prep Date: 11/30/2011 13:55
Matrix: Soil	Analytical Method: 6010B	Cal Date: 12/01/2011 11:20
Workgroup Number: WG383433	Analyst: EDL	Run Date: 12/01/2011 12:29
Collect Date: 11/29/2011 11:25	Dilution: 1	File ID: T2.120111.122912
Sample Tag: 01	Units: mg/kg	Percent Solid: 90.8

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	13.8		4.09	2.04
Cadmium, Total	7440-43-9	0.303	J	0.409	0.204

J Estimated value; the analyte concentration was less than the RL/LOQ.



Report Number: L11110916

Report Date : December 12, 2011

Sample Number: L11110916-05
 Client ID: DE-36A-11292011
 Matrix: Soil
 Workgroup Number: WG383433
 Collect Date: 11/29/2011 14:00
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: EDL
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 11/30/2011 13:55
 Cal Date: 12/01/2011 11:13
 Run Date: 12/01/2011 12:32
 File ID: T2.120111.123231
 Percent Solid: 70.9

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	13.6		4.97	2.48
Cadmium, Total	7440-43-9	1.40		0.497	0.248



Report Number: L11110916

Report Date : December 12, 2011

Sample Number: L11110916-06
 Client ID: DE-36E-11292011
 Matrix: Soil
 Workgroup Number: WG383433
 Collect Date: 11/29/2011 14:05
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: EDL
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 11/30/2011 13:56
 Cal Date: 12/01/2011 11:17
 Run Date: 12/01/2011 12:35
 File ID: T2.120111.123550
 Percent Solid: 87.5

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	23.6		4.17	2.09
Cadmium, Total	7440-43-9	0.886		0.417	0.209



Report Number: L11110916
 Report Date : December 12, 2011

Sample Number: L11110916-07	PrePrep Method: NONE	Instrument: ICP-THERMO2
Client ID: DE-36C-11292011	Prep Method: 3051A	Prep Date: 11/30/2011 13:57
Matrix: Soil	Analytical Method: 6010B	Cal Date: 12/01/2011 11:20
Workgroup Number: WG383433	Analyst: EDL	Run Date: 12/01/2011 12:39
Collect Date: 11/29/2011 14:10	Dilution: 1	File ID: T2.120111.123910
Sample Tag: 01	Units: mg/kg	Percent Solid: 90.6

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	14.2		3.70	1.85
Cadmium, Total	7440-43-9	0.295	J	0.370	0.185

J Estimated value; the analyte concentration was less than the RL/LOQ.



Report Number: L11110916
 Report Date : December 12, 2011

Sample Number: L11110916-08	PrePrep Method: NONE	Instrument: ICP-THERMO2
Client ID: DE-36D-11292011	Prep Method: 3051A	Prep Date: 11/30/2011 13:58
Matrix: Soil	Analytical Method: 6010B	Cal Date: 12/01/2011 11:20
Workgroup Number: WG383433	Analyst: EDL	Run Date: 12/01/2011 12:42
Collect Date: 11/29/2011 14:15	Dilution: 1	File ID: T2.120111.124228
Sample Tag: 01	Units: mg/kg	Percent Solid: 87.4

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	9.20		3.97	1.98
Cadmium, Total	7440-43-9	0.382	J	0.397	0.198

J Estimated value; the analyte concentration was less than the RL/LOQ.



Report Number: L11110916
 Report Date : December 12, 2011

Sample Number: L11110916-09	PrePrep Method: NONE	Instrument: ICP-THERMO2
Client ID: DE-36E-11292011	Prep Method: 3051A	Prep Date: 11/30/2011 13:58
Matrix: Soil	Analytical Method: 6010B	Cal Date: 12/01/2011 11:20
Workgroup Number: WG383433	Analyst: EDL	Run Date: 12/01/2011 12:45
Collect Date: 11/29/2011 14:20	Dilution: 1	File ID: T2.120111.124546
Sample Tag: 01	Units: mg/kg	Percent Solid: 95.7

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	2.98	J	3.87	1.93
Cadmium, Total	7440-43-9		U	0.387	0.193

U Not detected at or above adjusted sample detection limit.
 J Estimated value; the analyte concentration was less than the RL/LOQ.



Report Number: L11110916

Report Date : December 12, 2011

Sample Number: L11110916-10
 Client ID: DE-37A-11292011
 Matrix: Soil
 Workgroup Number: WG383433
 Collect Date: 11/29/2011 16:05
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: EDL
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 11/30/2011 13:59
 Cal Date: 12/01/2011 11:20
 Run Date: 12/01/2011 12:49
 File ID: T2.120111.124905
 Percent Solid: 70.6

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	20.3		5.05	2.52
Cadmium, Total	7440-43-9	1.66		0.505	0.252



Report Number: L11110916

Report Date : December 12, 2011

Sample Number: L11110916-11
 Client ID: DE-37B-11292011
 Matrix: Soil
 Workgroup Number: WG383433
 Collect Date: 11/29/2011 16:10
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: EDL
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 11/30/2011 13:59
 Cal Date: 12/01/2011 11:20
 Run Date: 12/01/2011 12:52
 File ID: T2.120111.125224
 Percent Solid: 86.6

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	23.7		4.09	2.04
Cadmium, Total	7440-43-9	0.919		0.409	0.204



Report Number: L11110916

Report Date : December 12, 2011

Sample Number: L11110916-12
 Client ID: DE-37C-11292011
 Matrix: Soil
 Workgroup Number: WG383433
 Collect Date: 11/29/2011 16:15
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: EDL
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 11/30/2011 14:00
 Cal Date: 12/01/2011 11:20
 Run Date: 12/01/2011 13:02
 File ID: T2.120111.130225
 Percent Solid: 89.3

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	3.50	J	4.25	2.12
Cadmium, Total	7440-43-9	1.09		0.425	0.212

J Estimated value; the analyte concentration was less than the RL/LOQ.



Report Number: L11110916
 Report Date : December 12, 2011

Sample Number: L11110916-13	PrePrep Method: NONE	Instrument: ICP-THERMO2
Client ID: DE-37D-11292011	Prep Method: 3051A	Prep Date: 11/30/2011 14:01
Matrix: Soil	Analytical Method: 6010B	Cal Date: 12/01/2011 11:20
Workgroup Number: WG383433	Analyst: EDL	Run Date: 12/01/2011 13:05
Collect Date: 11/29/2011 16:20	Dilution: 1	File ID: T2.120111.130544
Sample Tag: 01	Units: mg/kg	Percent Solid: 91.3

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	8.64		4.13	2.06
Cadmium, Total	7440-43-9	0.372	J	0.413	0.206

J Estimated value; the analyte concentration was less than the RL/LOQ.



Report Number: L11110916
 Report Date : December 12, 2011

Sample Number: L11110916-14	PrePrep Method: NONE	Instrument: ICP-THERMO2
Client ID: DE-37E-11292011	Prep Method: 3051A	Prep Date: 11/30/2011 14:02
Matrix: Soil	Analytical Method: 6010B	Cal Date: 12/01/2011 11:20
Workgroup Number: WG383433	Analyst: EDL	Run Date: 12/01/2011 13:09
Collect Date: 11/29/2011 16:25	Dilution: 1	File ID: T2.120111.130903
Sample Tag: 01	Units: mg/kg	Percent Solid: 91.4

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	3.68	J	4.13	2.06
Cadmium, Total	7440-43-9	0.237	J	0.413	0.206

J Estimated value; the analyte concentration was less than the RL/LOQ.



Report Number: L11110916

Report Date : December 12, 2011

Sample Number: L11110916-15
 Client ID: DE-37E-11292011-MS
 Matrix: Soil
 Workgroup Number: WG383433
 Collect Date: 11/29/2011 16:25
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: EDL
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 11/30/2011 13:48
 Cal Date: 12/01/2011 11:20
 Run Date: 12/01/2011 13:12
 File ID: T2.120111.131223
 Percent Solid: 91.4

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	10.1		4.13	2.06
Cadmium, Total	7440-43-9	1.07		0.413	0.206



Report Number: L11110916

Report Date : December 12, 2011

Sample Number: L11110916-16
 Client ID: DE-37E-11292011-MSD
 Matrix: Soil
 Workgroup Number: WG383433
 Collect Date: 11/29/2011 16:25
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: EDL
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 11/30/2011 13:48
 Cal Date: 12/01/2011 11:20
 Run Date: 12/01/2011 13:15
 File ID: T2.120111.131539
 Percent Solid: 91.4

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	11.3		4.13	2.06
Cadmium, Total	7440-43-9	1.17		0.413	0.206



Report Number: L11110916
 Report Date : December 12, 2011

Sample Number: L11110916-17
 Client ID: DUP-SOIL-11292011
 Matrix: Soil
 Workgroup Number: WG383433
 Collect Date: 11/29/2011 00:01
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3051A
 Analytical Method: 6010B
 Analyst: EDL
 Dilution: 1
 Units: mg/kg

Instrument: ICP-THERMO2
 Prep Date: 11/30/2011 14:04
 Cal Date: 12/01/2011 11:20
 Run Date: 12/01/2011 13:18
 File ID: T2.120111.131855
 Percent Solid: 89.2

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2	22.1		3.78	1.89
Cadmium, Total	7440-43-9	0.335	J	0.378	0.189

J Estimated value; the analyte concentration was less than the RL/LOQ.



Report Number: L11110916

Report Date : December 12, 2011

Sample Number: L11110916-18
 Client ID: EB-SOIL-11292011
 Matrix: Water
 Workgroup Number: WG383504
 Collect Date: 11/29/2011 17:00
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 3005A
 Analytical Method: 6010B
 Analyst: KHR
 Dilution: 1
 Units: mg/L

Instrument: PE-ICP2
 Prep Date: 12/01/2011 12:34
 Cal Date: 12/01/2011 09:17
 Run Date: 12/01/2011 14:05
 File ID: P2.120111.140559

Analyte	CAS. Number	Result	Qual	RL	MDL
Arsenic, Total	7440-38-2		U	0.0100	0.00500
Cadmium, Total	7440-43-9		U	0.000500	0.000250

U Not detected at or above adjusted sample detection limit.



2.1.1.2 QC Summary Data

Example 6010 Calculations
Perkin Elmer Optima 4300 DV

1.0 Initial Calibration (ICAL) Parameters

The system performs linear regression from data consisting of a blank and three standards.

2.0 Calculating the concentration (C) of an element in water using data from prep log, run log, and quantitation report (note:the data system performs this calculation automatically when correction factors have been entered):

$$Cx = Cs \times \frac{Vf}{Vi} \times D$$

Where:

Cs = Concentration computed by the data system in ug/mL (ppm)

Vf = Final volume (mL)

Vi = Initial volume (mL)

D = Dilution factor as a multiplier (10X = 10)

Cx = Concentration of element in ug/mL (mg/L)

Example:

0.1

50

50

1

0.1

3.0 Calculating the concentration (C) of an element in soil using data from prep log, run log, and quantitation report (note: the data system performs this calculation automatically when correction factors have been entered):

$$Cx = Cs \times \frac{Vf}{Vi} \times D$$

Where:

Cs = Concentration computed by the data system (mg/L) (ppm)

Vf = Final volume (mL)

Vi = Initial weight (g)

D = Dilution factor as a multiplier (10X = 10)

Cx = Concentration of element in ug/g (mg/kg)

Example:

0.1

50

1

1

5

4.0 Adjusting the concentration to dry weight:

$$Cdry = \frac{Cx \times 100}{Px}$$

Where:

Cx = Concentration calculated as received (wet basis)

Px = Percent solids of sample (%wt)

$Cdry$ = Concentration calculated as dry weight (mg/kg)

Example:

5

80

6.25

Example 6010 Calculations
Thermo Scientific IRIS Advantage

1.0 Initial Calibration (ICAL) Parameters

The system performs linear regression from data consisting of a blank and three standards.

2.0 Calculating the concentration (C) of an element in water using data from prep log, run log, and quantitation report (note:the data system performs this calculation automatically when correction factors have been entered):

$$Cx = Cs \times \frac{Vf}{Vi} \times D$$

Where:

Cs = Concentration computed by the data system in ug/mL (ppm)

Vf = Final volume (mL)

Vi = Initial volume (mL)

D = Dilution factor as a multiplier (10X = 10)

Cx = Concentration of element in ug/mL (mg/L)

Example:

0.1

50

50

1

0.1

3.0 Calculating the concentration (C) of an element in soil using data from prep log, run log, and quantitation report (note: the data system performs this calculation automatically when correction factors have been entered):

$$Cx = Cs \times \frac{Vf}{Vi} \times D$$

Where:

Cs = Concentration computed by the data system (mg/L) (ppm)

Vf = Final volume (mL)

Vi = Initial weight (g)

D = Dilution factor as a multiplier (10X = 10)

Cx = Concentration of element in ug/g (mg/kg)

Example:

0.1

50

1

1

5

4.0 Adjusting the concentration to dry weight:

$$Cdry = \frac{Cx \times 100}{Px}$$

Where:

Cx = Concentration calculated as received (wet basis)

Px = Percent solids of sample (%wt)

$Cdry$ = Concentration calculated as dry weight (mg/kg)

Example:

5

80

6.25

Example 6010 Calculations
Thermo Scientific iCAP 6500

1.0 Initial Calibration (ICAL) Parameters

For a multi-point calibration, the system performs linear regression from data consisting of a blank and four standards.

2.0 Calculating the concentration (C) of an element in water using data from prep log, run log, and quantitation report (note:the data system performs this calculation automatically when correction factors have been entered):

$$Cx = Cs \times \frac{Vf}{Vi} \times D$$

Where:

Cs = Concentration computed by the data system in ug/mL (ppm)

Vf = Final volume (mL)

Vi = Initial volume (mL)

D = Dilution factor as a multiplier (10X = 10)

Cx = Concentration of element in ug/mL (mg/L)

Example:

0.1

50

50

1

0.1

3.0 Calculating the concentration (C) of an element in soil using data from prep log, run log, and quantitation report (note: the data system performs this calculation automatically when correction factors have been entered):

$$Cx = Cs \times \frac{Vf}{Vi} \times D$$

Where:

Cs = Concentration computed by the data system (mg/L) (ppm)

Vf = Final volume (mL)

Vi = Initial weight (g)

D = Dilution factor as a multiplier (10X = 10)

Cx = Concentration of element in ug/g (mg/kg)

Example:

0.1

50

1

1

5

4.0 Adjusting the concentration to dry weight:

$$Cdry = \frac{Cx \times 100}{Px}$$

Where:

Cx = Concentration calculated as received (wet basis)

Px = Percent solids of sample (%wt)

$Cdry$ = Concentration calculated as dry weight (mg/kg)

Example:

5

80

6.25

Microbac Laboratories Inc.
Microwave Digestion Log

Workgroup: WG383396
Analyst: BRG
Spike Analyst: ERP
Run Date: 11/30/2011 14:05
Method: 3051A
Balance: BAL014
Instrument: MW-3

SOP: ME406 Revision 12
Spike Solution: STD48462
Spike Witness: VC
HNO3 Lot #: COA15720
HCL Lot #: COA15760
Digestion Tubes Lot #: COA15719

	SAMPLE #	Type	Matrix	Initial Amount	Final Volume	Initial Vessel Wt	Final Vessel Wt	Spike Amount	Due Date
1	WG383396-02	BLANK	7	1 g	50 mL	174.348 g	174.337 g		
2	WG383396-03	LCS	7	1 g	50 mL	181.996 g	181.992 g	5 mL	
3	L11110543-40	SAMP	7	1.318 g	50 mL	178.823 g	178.69 g		11/29/11
4	L11110543-41	SAMP	7	1.388 g	50 mL	176.686 g	176.677 g		11/29/11
5	L11110543-42	SAMP	7	1.335 g	50 mL	175.993 g	175.994 g		11/29/11
6	L11110543-43	SAMP	7	1.374 g	50 mL	178.538 g	178.492 g		11/29/11
7	L11110916-01	SAMP	7	1.406 g	50 mL	176.148 g	176.143 g		12/01/11
8	L11110916-02	SAMP	7	1.362 g	50 mL	179.109 g	179.095 g		12/01/11
9	L11110916-03	SAMP	7	1.407 g	50 mL	177.936 g	177.863 g		12/01/11
10	L11110916-04	SAMP	7	1.346 g	50 mL	177.836 g	177.512 g		12/01/11
11	L11110916-05	SAMP	7	1.42 g	50 mL	175.737 g	175.491 g		12/01/11
12	L11110916-06	SAMP	7	1.369 g	50 mL	177.281 g	176.828 g		12/01/11
13	L11110916-07	SAMP	7	1.493 g	50 mL	178.099 g	178.072 g		12/01/11
14	L11110916-08	SAMP	7	1.443 g	50 mL	176.801 g	176.81 g		12/01/11
15	L11110916-09	SAMP	7	1.352 g	50 mL	177.442 g	177.421 g		12/01/11
16	L11110916-10	SAMP	7	1.404 g	50 mL	176.58 g	176.536 g		12/01/11
17	L11110916-11	SAMP	7	1.412 g	50 mL	177.061 g	176.857 g		12/01/11
18	L11110916-12	SAMP	7	1.318 g	50 mL	174.81 g	174.806 g		12/01/11
19	L11110916-13	SAMP	7	1.326 g	50 mL	176.56 g	176.525 g		12/01/11
20	WG383396-01	REF	7	1.324 g	50 mL	176.892 g	176.342 g		
21	L11110916-14	RS01	7	1.324 g	50 mL	176.892 g	176.342 g		12/01/11
22	WG383396-04	MS	7	1.324 g	50 mL	181.544 g	181.527 g	5 mL	
23	L11110916-15	MS01	7	1.324 g	50 mL	181.544 g	181.527 g	5 mL	12/01/11
24	WG383396-05	MSD	7	1.324 g	50 mL	182.504 g	182.476 g	5 mL	
25	L11110916-16	SD01	7	1.324 g	50 mL	182.504 g	182.476 g	5 mL	12/01/11
26	L11110916-17	SAMP	7	1.481 g	50 mL	178.832 g	178.793 g		12/01/11
27	L11110926-01	SAMP	7	1.416 g	50 mL	177.835 g	177.806 g		12/05/11

L11110916-01	sample reacted to the acid
L11110916-08	sample reacted to the acid

Analyst: Brenda Gregory

Reviewer: Vicki Collier



Microbac Laboratories Inc.
Metals Digest Log

Workgroup: WG383485
Analyst: BRG
Spike Analyst: BRG
Method: 3005A
Run Date: 12/01/2011 12:34
Hotblock Start Temp: 97.6 @ 08:00
Hotblock End Temp: 97.2 @ 12:00

SOP: ME401 Revision 14
Spike Solution: STD48462
Spike Witness: ERP
HCL Lot #: COA15760
HNO3 Lot #: COA15720
Digestion Tubes Lot #: COA15719
ICP;WG378021 Filter Lot COA15782

	SAMPLE #	Type	Matrix	Initial Amount	Final Volume	Spike Amount	Due Date
1	WG383485-03	BLANK	1	50 mL	50 mL		
2	WG383485-04	LCS	1	50 mL	50 mL	5 mL	
3	WG383485-01	REF	1	50 mL	50 mL		
4	L11110860-04	RS02	1	50 mL	50 mL		12/07/11
5	WG383485-05	MS	1	50 mL	50 mL	5 mL	
6	L11110860-05	MS02	1	50 mL	50 mL	5 mL	12/07/11
7	WG383485-06	MSD	1	50 mL	50 mL	5 mL	
8	L11110860-06	SD02	1	50 mL	50 mL	5 mL	12/07/11
9	L11110860-11	SAMP	1	50 mL	50 mL		12/07/11
10	L11110860-14	SAMP	1	50 mL	50 mL		12/07/11
11	L11110860-17	SAMP	1	50 mL	50 mL		12/07/11
12	L11110860-20	SAMP	1	50 mL	50 mL		12/07/11
13	L11110860-23	SAMP	1	50 mL	50 mL		12/07/11
14	L11110860-26	SAMP	1	50 mL	50 mL		12/07/11
15	L11110860-29	SAMP	1	50 mL	50 mL		12/07/11
16	L11110864-01	SAMP	1	50 mL	50 mL		12/12/11
17	L11110864-02	SAMP	1	50 mL	50 mL		12/12/11
18	L11110864-03	SAMP	1	50 mL	50 mL		12/12/11
19	L11110864-04	SAMP	1	50 mL	50 mL		12/12/11
20	L11110864-06	SAMP	1	50 mL	50 mL		12/12/11
21	WG383485-02	REF	1	50 mL	50 mL		
22	L11110864-07	RS01	1	50 mL	50 mL		12/12/11
23	WG383485-07	MS	1	50 mL	50 mL	5 mL	
24	L11110864-08	MS01	1	50 mL	50 mL	5 mL	12/12/11
25	WG383485-08	MSD	1	50 mL	50 mL	5 mL	
26	L11110864-09	SD01	1	50 mL	50 mL	5 mL	12/12/11
27	L11110864-10	SAMP	1	50 mL	50 mL		12/12/11
28	L11110916-18	SAMP	1	50 mL	50 mL		12/01/11
29	L11110934-01	SAMP	1	50 mL	50 mL		12/09/11
30	L11110934-02	SAMP	1	50 mL	50 mL		12/09/11

L11110860-11	filtered digestate
L11110860-14	filtered digestate
L11110860-23	filtered digestate

HB_DIG - Modified 09/30/2009
PDF ID: 2240923
Report generated: 12/01/2011 12:35



Microbac Laboratories Inc.
Metals Digest Log

Workgroup: WG383485

Analyst: BRG

Spike Analyst: BRG

Method: 3005A

Run Date: 12/01/2011 12:34

Hotblock Start Temp: 97.6 @ 08:00

Hotblock End Temp: 97.2 @ 12:00

SOP: ME401 Revision 14

Spike Solution: STD48462

Spike Witness: ERP

HCL Lot #: COA15760

HNO3 Lot #: COA15720

Digestion Tubes Lot #: COA15719

ICP;WG378021 Filter Lot COA15782

Analyst: Brenda Gregory

Reviewer: Erin Pottin



Microbac Laboratories Inc.
Instrument Run Log

Instrument: PE-ICP2 Dataset: 120111H.CSV
 Analyst1: KHR Analyst2: N/A
 Method: 6010 SOP: ME600E Rev: 11
 Maintenance Log ID: 39884

Calibration Std: STD48600 ICV Std: STD48601 Post Spike: STD48461
 ICSA: STD48622 ICSAB: STD48623 Int. Std: STD48692
 CCV: STD48867 LLCCV: _____

383330, 383504, 383338, 382964, 383402

Workgroups:

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
1	P2.120111.084948	WG383535-01	Calibration Point		1		12/01/11 08:49
2	P2.120111.085637	WG383535-02	Calibration Point		1		12/01/11 08:56
3	P2.120111.090327	WG383535-03	Calibration Point		1		12/01/11 09:03
4	P2.120111.091017	WG383535-04	Calibration Point		1		12/01/11 09:10
5	P2.120111.091712	WG383535-05	Calibration Point		1		12/01/11 09:17
6	P2.120111.092409	WG383535-06	Initial Calibration Verification		1		12/01/11 09:24
7	P2.120111.093102	WG383535-07	Initial Calib Blank		1		12/01/11 09:31
8	P2.120111.093751	WG383535-08	Interference Check		1		12/01/11 09:37
9	P2.120111.094344	WG383535-09	Interference Check		1		12/01/11 09:43
10	P2.120111.094937	WG383535-10	CCV		1		12/01/11 09:49
11	P2.120111.095633	WG383535-11	CCB		1		12/01/11 09:56
12	P2.120111.100321	WG382514-03	Method/Prep Blank	50/50	1		12/01/11 10:03
13	P2.120111.101011	WG382514-04	Laboratory Control S	50/50	1		12/01/11 10:10
14	P2.120111.101706	WG383535-12	CCV		1		12/01/11 10:17
15	P2.120111.102402	WG383535-13	CCB		1		12/01/11 10:24
16	P2.120111.102947	L11110493-01	TW78	50/50	1		12/01/11 10:29
17	P2.120111.103547	L11110493-02	TW78	50/50	1		12/01/11 10:35
18	P2.120111.104243	L11110493-03	TW59D	50/50	1		12/01/11 10:42
19	P2.120111.104939	L11110493-04	TW59D	50/50	1		12/01/11 10:49
20	P2.120111.105634	WG382514-01	Reference Sample		1	L11110493-05	12/01/11 10:56
21	P2.120111.110230	WG382514-02	Reference Sample		1	L11110493-06	12/01/11 11:02
22	P2.120111.110925	L11110493-07	SL-21	50/50	1		12/01/11 11:09
23	P2.120111.111521	L11110493-08	SL-21	50/50	1		12/01/11 11:15
24	P2.120111.112217	WG383330-03	Post Digestion Spike		1	L11110493-08	12/01/11 11:22
25	P2.120111.112914	WG383330-04	Serial Dilution		5	L11110493-08	12/01/11 11:29
26	P2.120111.113610	WG383535-14	CCV		1		12/01/11 11:36
27	P2.120111.114306	WG383535-15	CCB		1		12/01/11 11:43
28	P2.120111.114955	WG382514-05	Matrix Spike	50/50	1	L11110493-05	12/01/11 11:49
29	P2.120111.115552	WG382514-07	Matrix Spike	50/50	1	L11110493-06	12/01/11 11:55
30	P2.120111.120247	WG382514-06	Matrix Spike Duplica	50/50	1	L11110493-05	12/01/11 12:02
31	P2.120111.120844	WG382514-08	Matrix Spike Duplica	50/50	1	L11110493-06	12/01/11 12:08
32	P2.120111.121539	L11110493-13	EQ RINSE	50/50	1		12/01/11 12:15
33	P2.120111.122229	L11110493-14	TW60D	50/50	1		12/01/11 12:22
34	P2.120111.122924	L11110493-15	TW60D	50/50	1		12/01/11 12:29

Page: 1 Approved: December 05, 2011

Maren Beery



Microbac Laboratories Inc.
Instrument Run Log

Instrument: PE-ICP2 Dataset: 120111H.CSV
 Analyst1: KHR Analyst2: N/A
 Method: 6010 SOP: ME600E Rev: 11
 Maintenance Log ID: 39884

Calibration Std: STD48600 ICV Std: STD48601 Post Spike: STD48461
 ICSA: STD48622 ICSAB: STD48623 Int. Std: STD48692
 CCV: STD48867 LLCCV: _____

383330, 383504, 383338, 382964, 383402

Workgroups:

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
35	P2.120111.123620	L11110493-16	TW60SR	50/50	1		12/01/11 12:36
36	P2.120111.124216	L11110493-17	TW60SR	50/50	1		12/01/11 12:42
37	P2.120111.125712	WG383535-16	CCV		1		12/01/11 12:57
38	P2.120111.130409	WG383535-17	CCB		1		12/01/11 13:04
39	P2.120111.131058	WG383485-03	Method/Prep Blank	50/50	1		12/01/11 13:10
40	P2.120111.131749	WG383485-04	Laboratory Control S	50/50	1		12/01/11 13:17
41	P2.120111.132444	WG383485-01	Reference Sample		1	L11110860-04	12/01/11 13:24
42	P2.120111.133135	WG383485-05	Matrix Spike	50/50	1	L11110860-04	12/01/11 13:31
43	P2.120111.133830	WG383485-06	Matrix Spike Duplica	50/50	1	L11110860-04	12/01/11 13:38
44	P2.120111.134524	L11110860-11	MW2E.267.14	50/50	1		12/01/11 13:45
45	P2.120111.135215	WG383504-01	Post Digestion Spike		1	L11110860-11	12/01/11 13:52
46	P2.120111.135907	WG383504-02	Serial Dilution		5	L11110860-11	12/01/11 13:59
47	P2.120111.140559	L11110916-18	EB-SOIL-11292011	50/50	1		12/01/11 14:05
48	P2.120111.141250	WG383535-18	CCV		1		12/01/11 14:12
49	P2.120111.141946	WG383535-19	CCB		1		12/01/11 14:19
50	P2.120111.142634	WG383535-20	Interference Check		1		12/01/11 14:26
51	P2.120111.143227	WG383535-21	Interference Check		1		12/01/11 14:32
52	P2.120111.143820	WG383535-22	CCV		1		12/01/11 14:38
53	P2.120111.144516	WG383535-23	CCB		1		12/01/11 14:45
54	P2.120111.145204	L11110493-18	TW61D	50/50	1		12/01/11 14:52
55	P2.120111.145901	L11110493-19	TW61D	50/50	1		12/01/11 14:59
56	P2.120111.150559	L11110650-01	KIS-MW05-111611	50/50	1		12/01/11 15:05
57	P2.120111.151251	L11110650-02	KIS-MW05T-111611	50/50	1		12/01/11 15:12
58	P2.120111.151945	WG383330-05	Post Digestion Spike		1	L11110650-02	12/01/11 15:19
59	P2.120111.152640	WG383330-06	Serial Dilution		5	L11110650-02	12/01/11 15:26
60	P2.120111.153331	WG383535-24	CCV		1		12/01/11 15:33
61	P2.120111.154028	WG383535-25	CCB		1		12/01/11 15:40
62	P2.120111.154716	L11110686-07	6270-W0001	50/50	1		12/01/11 15:47
63	P2.120111.155256	L11110686-08	6270-W0002	50/50	1		12/01/11 15:52
64	P2.120111.155949	L11110693-01	W20	50/50	1		12/01/11 15:59
65	P2.120111.160644	WG382734-01	Reference Sample		1	L11110693-02	12/01/11 16:06
66	P2.120111.161344	WG382734-04	Matrix Spike	50/50	1	L11110693-02	12/01/11 16:13
67	P2.120111.162044	WG382734-05	Matrix Spike Duplica	50/50	1	L11110693-02	12/01/11 16:20
68	P2.120111.162746	L11110693-05	W37WT	50/50	1		12/01/11 16:27

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Maren Beery



Microbac Laboratories Inc.
Instrument Run Log

Instrument: PE-ICP2 Dataset: 120111H.CSV
 Analyst1: KHR Analyst2: N/A
 Method: 6010 SOP: ME600E Rev: 11
 Maintenance Log ID: 39884

Calibration Std: STD48600 ICV Std: STD48601 Post Spike: STD48461
 ICSA: STD48622 ICSAB: STD48623 Int. Std: STD48692
 CCV: STD48867 LLCCV: _____

383330, 383504, 383338, 382964, 383402

Workgroups:

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
69	P2.120111.163442	L11110693-07	W1AR	50/50	1		12/01/11 16:34
70	P2.120111.164139	L11110693-09	W50	50/50	1		12/01/11 16:41
71	P2.120111.164833	WG383535-26	CCV		1		12/01/11 16:48
72	P2.120111.165530	WG383535-27	CCB		1		12/01/11 16:55
73	P2.120111.170218	L11110704-01	14360-W0003	50/50	1		12/01/11 17:02
74	P2.120111.170907	L11110704-02	14363-W0003	50/50	1		12/01/11 17:09
75	P2.120111.171557	L11110707-01	16930-W0001	50/50	1		12/01/11 17:15
76	P2.120111.172246	L11110726-01	13652-W0001	50/50	1		12/01/11 17:22
77	P2.120111.172936	L11110603-02	MW-2	50/50	100		12/01/11 17:29
78	P2.120111.173626	L11110603-04	MW-5	50/50	100		12/01/11 17:36
79	P2.120111.174316	L11110603-08	MW-16	50/50	100		12/01/11 17:43
80	P2.120111.175007	L11110603-10	MW-56	50/50	100		12/01/11 17:50
81	P2.120111.175658	L11110603-12	MW-18	50/50	100		12/01/11 17:56
82	P2.120111.180350	L11110603-14	MW-28	50/50	100		12/01/11 18:03
83	P2.120111.181041	WG383535-28	CCV		1		12/01/11 18:10
84	P2.120111.181738	WG383535-29	CCB		1		12/01/11 18:17
85	P2.120111.182427	L11110603-16	MW-31	50/50	100		12/01/11 18:24
86	P2.120111.183116	L11110603-18	MW-51	50/50	100		12/01/11 18:31
87	P2.120111.183805	L11110603-20	MW-32	50/50	100		12/01/11 18:38
88	P2.120111.184454	L11110603-28	MW-39S	50/50	100		12/01/11 18:44
89	P2.120111.185143	WG383535-30	CCV		1		12/01/11 18:51
90	P2.120111.185840	WG383535-31	CCB		1		12/01/11 18:58
91	P2.120111.190528	WG383362-02	Method/Prep Blank	5/50	1		12/01/11 19:05
92	P2.120111.191218	WG383362-03	Laboratory Control S	5/50	1		12/01/11 19:12
93	P2.120111.191912	L11110758-01	HW11034	5/50	1		12/01/11 19:19
94	P2.120111.192606	L11110758-04	HW11037	5/50	1		12/01/11 19:26
95	P2.120111.193256	L11110763-03	HW11028	5/50	5		12/01/11 19:32
96	P2.120111.193947	L11110883-01	ALAN SALT CAKE	5/50	1		12/01/11 19:39
97	P2.120111.194647	L11110883-02	REG BH BLUE X	5/50	1		12/01/11 19:46
98	P2.120111.195344	WG383402-01	Post Digestion Spike		1	L11110883-02	12/01/11 19:53
99	P2.120111.200041	WG383402-02	Serial Dilution		5	L11110883-02	12/01/11 20:00
100	P2.120111.200732	WG383535-32	CCV		1		12/01/11 20:07
101	P2.120111.201429	WG383535-33	CCB		1		12/01/11 20:14
102	P2.120111.202117	L11110892-01	1111-311-1		1		12/01/11 20:21

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Microbac Laboratories Inc.

Instrument Run Log

Instrument: PE-ICP2 Dataset: 120111H.CSV
 Analyst1: KHR Analyst2: N/A
 Method: 6010 SOP: ME600E Rev: 11
 Maintenance Log ID: 39884

Calibration Std: STD48600 ICV Std: STD48601 Post Spike: STD48461
 ICSA: STD48622 ICSAB: STD48623 Int. Std: STD48692
 CCV: STD48867 LLCCV: _____

383330, 383504, 383338, 382964, 383402

Workgroups:

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
103	P2.120111.202810	L11110892-02	1111-311-2		1		12/01/11 20:28
104	P2.120111.203503	WG383362-01	Reference Sample		1	L11110892-03	12/01/11 20:35

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 120111T2.1R.TXT
 Analyst1: EDL Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 39882

Calibration Std: STD48700 ICV Std: STD48624 Post Spike: STD48461
 ICSA: STD48570 ICSAB: STD48701 Int. Std: STD48702
 CCV: STD48699 LLCCV: _____

383433, 383496, 383480, 383509, 383510, 383515, 383549, 383550

Workgroups:

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
1	T2.120111.110634	WG383506-01	Calibration Point		1		12/01/11 11:06
2	T2.120111.111032	WG383506-02	Calibration Point		1		12/01/11 11:10
3	T2.120111.111357	WG383506-03	Calibration Point		1		12/01/11 11:13
4	T2.120111.111721	WG383506-04	Calibration Point		1		12/01/11 11:17
5	T2.120111.112038	WG383506-05	Calibration Point		1		12/01/11 11:20
6	T2.120111.112356	WG383506-06	Initial Calibration Verification		1		12/01/11 11:23
7	T2.120111.112707	WG383506-07	Initial Calib Blank		1		12/01/11 11:27
8	T2.120111.113029	WG383506-08	Interference Check		1		12/01/11 11:30
9	T2.120111.113342	WG383506-09	Interference Check		1		12/01/11 11:33
10	T2.120111.113656	WG383506-10	CCV		1		12/01/11 11:36
11	T2.120111.114006	WG383506-11	CCB		1		12/01/11 11:40
12	T2.120111.114333	WG383396-02	Method/Prep Blank	1/50	1		12/01/11 11:43
13	T2.120111.114654	WG383396-03	Laboratory Control S	1/50	1		12/01/11 11:46
14	T2.120111.115007	L11110543-40	6085-C0022	1.318/50	1		12/01/11 11:50
15	T2.120111.115314	L11110543-41	6085-C0023	1.388/50	1		12/01/11 11:53
16	T2.120111.115622	L11110543-42	6085-C0024	1.335/50	1		12/01/11 11:56
17	T2.120111.115931	L11110543-43	6085-C0025	1.374/50	1		12/01/11 11:59
18	T2.120111.120243	L11110916-01	DE-35A-11292011	1.406/50	1		12/01/11 12:02
19	T2.120111.120601	WG383433-01	Post Digestion Spike		1	L11110916-01	12/01/11 12:06
20	T2.120111.120918	WG383433-02	Serial Dilution		5	L11110916-01	12/01/11 12:09
21	T2.120111.121239	WG383433-02	Serial Dilution		25	L11110916-01	12/01/11 12:12
22	T2.120111.121600	WG383506-22	CCV		1		12/01/11 12:16
23	T2.120111.121910	WG383506-23	CCB		1		12/01/11 12:19
24	T2.120111.122237	L11110916-02	DE-35B-11292011	1.362/50	1		12/01/11 12:22
25	T2.120111.122555	L11110916-03	DE-35C-11292011	1.407/50	1		12/01/11 12:25
26	T2.120111.122912	L11110916-04	DE-35D-11292011	1.346/50	1		12/01/11 12:29
27	T2.120111.123231	L11110916-05	DE-36A-11292011	1.42/50	1		12/01/11 12:32
28	T2.120111.123550	L11110916-06	DE-36B-11292011	1.369/50	1		12/01/11 12:35
29	T2.120111.123910	L11110916-07	DE-36C-11292011	1.493/50	1		12/01/11 12:39
30	T2.120111.124228	L11110916-08	DE-36D-11292011	1.443/50	1		12/01/11 12:42
31	T2.120111.124546	L11110916-09	DE-36E-11292011	1.352/50	1		12/01/11 12:45
32	T2.120111.124905	L11110916-10	DE-37A-11292011	1.404/50	1		12/01/11 12:49
33	T2.120111.125224	L11110916-11	DE-37B-11292011	1.412/50	1		12/01/11 12:52
34	T2.120111.125547	WG383506-24	CCV		1		12/01/11 12:55

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Maren Beery



Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 120111T2.1R.TXT
 Analyst1: EDL Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 39882

Calibration Std: STD48700 ICV Std: STD48624 Post Spike: STD48461
 ICSA: STD48570 ICSAB: STD48701 Int. Std: STD48702
 CCV: STD48699 LLCCV: _____

383433, 383496, 383480, 383509, 383510, 383515, 383549, 383550

Workgroups:

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
35	T2.120111.125857	WG383506-25	CCB		1		12/01/11 12:58
36	T2.120111.130225	L11110916-12	DE-37C-11292011	1.318/50	1		12/01/11 13:02
37	T2.120111.130544	L11110916-13	DE-37D-11292011	1.326/50	1		12/01/11 13:05
38	T2.120111.130903	WG383396-01	Reference Sample		1	L11110916-14	12/01/11 13:09
39	T2.120111.131223	WG383396-04	Matrix Spike	1.324/50	1	L11110916-14	12/01/11 13:12
40	T2.120111.131539	WG383396-05	Matrix Spike Duplica	1.324/50	1	L11110916-14	12/01/11 13:15
41	T2.120111.131855	L11110916-17	DUP-SOIL-11292011	1.481/50	1		12/01/11 13:18
42	T2.120111.132213	L11110926-01	TS01AA	1.416/50	1		12/01/11 13:22
43	T2.120111.132526	WG383506-26	Interference Check		1		12/01/11 13:25
44	T2.120111.132841	WG383506-27	Interference Check		1		12/01/11 13:28
45	T2.120111.133158	WG383506-28	CCV		1		12/01/11 13:31
46	T2.120111.133508	WG383506-29	CCB		1		12/01/11 13:35
47	T2.120111.133839	WG383218-01	Method/Prep Blank	1/50	1		12/01/11 13:38
48	T2.120111.134155	WG383218-02	Laboratory Control S	1/50	1		12/01/11 13:41
49	T2.120111.134505	WG383218-03	Laboratory Control S	1/50	1		12/01/11 13:45
50	T2.120111.134813	L11110859-01	UNIT 1	1/50	1		12/01/11 13:48
51	T2.120111.135128	L11110859-02	UNIT 2	1/50	1		12/01/11 13:51
52	T2.120111.135442	L11110859-03	UNIT 3	1/50	1		12/01/11 13:54
53	T2.120111.135755	L11110859-04	UNIT 4	1/50	1		12/01/11 13:57
54	T2.120111.140106	WG383496-01	Post Digestion Spike		1	L11110859-04	12/01/11 14:01
55	T2.120111.140415	WG383496-02	Serial Dilution		5	L11110859-04	12/01/11 14:04
56	T2.120111.140732	WG383496-02	Serial Dilution		25	L11110859-04	12/01/11 14:07
57	T2.120111.141056	WG383506-30	CCV		1		12/01/11 14:10
58	T2.120111.141406	WG383506-31	CCB		1		12/01/11 14:14
59	T2.120111.141736	WG383426-02	Method/Prep Blank	1/50	1		12/01/11 14:17
60	T2.120111.142059	WG383426-03	Laboratory Control S	1/50	1		12/01/11 14:20
61	T2.120111.142412	L11110546-18	6085-C0046	1.392/50	1		12/01/11 14:24
62	T2.120111.143345	L11110546-19	6085-C0047	1.465/50	1		12/01/11 14:33
63	T2.120111.143702	L11110546-20	6085-C0048	1.341/50	1		12/01/11 14:37
64	T2.120111.144012	L11110546-21	6085-C0049	1.347/50	1		12/01/11 14:40
65	T2.120111.144321	L11110546-22	6085-C0050	1.418/50	1		12/01/11 14:43
66	T2.120111.144629	WG383480-01	Post Digestion Spike		1	L11110546-22	12/01/11 14:46
67	T2.120111.144935	WG383480-02	Serial Dilution		5	L11110546-22	12/01/11 14:49
68	T2.120111.145248	WG383480-02	Serial Dilution		25	L11110546-22	12/01/11 14:52

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Maren Beery



Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 120111T2.1R.TXT
 Analyst1: EDL Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 39882

Calibration Std: STD48700 ICV Std: STD48624 Post Spike: STD48461
 ICSA: STD48570 ICSAB: STD48701 Int. Std: STD48702
 CCV: STD48699 LLCCV: _____

383433, 383496, 383480, 383509, 383510, 383515, 383549, 383550

Workgroups:

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
69	T2.120111.145617	WG383506-32	CCV		1		12/01/11 14:56
70	T2.120111.145929	WG383506-33	CCB		1		12/01/11 14:59
71	T2.120111.150300	WG383426-01	Reference Sample		1	L11110546-26	12/01/11 15:03
72	T2.120111.150611	WG383426-04	Matrix Spike	1.336/50	1	L11110546-26	12/01/11 15:06
73	T2.120111.150920	WG383426-05	Matrix Spike Duplica	1.336/50	1	L11110546-26	12/01/11 15:09
74	T2.120111.151229	L11110906-01	31-1	1.396/50	1		12/01/11 15:12
75	T2.120111.151552	L11110906-02	31-4	1.325/50	1		12/01/11 15:15
76	T2.120111.151917	L11110906-03	32-1	1.341/50	1		12/01/11 15:19
77	T2.120111.152222	L11110906-04	32-3	1.343/50	1		12/01/11 15:22
78	T2.120111.152547	L11110906-05	33-1	1.371/50	1		12/01/11 15:25
79	T2.120111.152913	L11110906-06	33-2	1.361/50	1		12/01/11 15:29
80	T2.120111.153256	L11110906-07	34-1	1.424/50	1		12/01/11 15:32
81	T2.120111.153614	WG383506-34	CCV		1		12/01/11 15:36
82	T2.120111.153924	WG383506-35	CCB		1		12/01/11 15:39
83	T2.120111.154253	L11110906-08	34-3	1.429/50	1		12/01/11 15:42
84	T2.120111.154611	L11110906-09	35-2	1.308/50	1		12/01/11 15:46
85	T2.120111.154930	L11110906-10	35-4	1.389/50	1		12/01/11 15:49
86	T2.120111.155254	L11110906-11	36-2	1.41/50	1		12/01/11 15:52
87	T2.120111.155604	L11110906-12	36-3	1.387/50	1		12/01/11 15:56
88	T2.120111.155913	L11110906-13	37-1	1.493/50	1		12/01/11 15:59
89	T2.120111.160239	L11110906-14	37-2	1.383/50	1		12/01/11 16:02
90	T2.120111.160610	WG383506-36	CCV		1		12/01/11 16:06
91	T2.120111.160921	WG383506-37	CCB		1		12/01/11 16:09
92	T2.120111.161246	WG383474-02	Method/Prep Blank	1/50	1		12/01/11 16:12
93	T2.120111.161608	WG383474-03	Laboratory Control S	1/50	1		12/01/11 16:16
94	T2.120111.161932	L11110574-01	2383-C0008	1.484/50	1		12/01/11 16:19
95	T2.120111.162240	L11110574-02	2390-C0018	1.478/50	1		12/01/11 16:22
96	T2.120111.162617	L11110574-03	2390-C0020	1.377/50	1		12/01/11 16:26
97	T2.120111.162927	L11110574-04	2403-C0010	1.349/50	1		12/01/11 16:29
98	T2.120111.163235	L11110574-05	2444-C0013	1.331/50	1		12/01/11 16:32
99	T2.120111.163552	WG383509-01	Post Digestion Spike		1	L11110574-05	12/01/11 16:35
100	T2.120111.163907	WG383509-02	Serial Dilution		5	L11110574-05	12/01/11 16:39
101	T2.120111.164228	WG383509-02	Serial Dilution		25	L11110574-05	12/01/11 16:42
102	T2.120111.164548	WG383506-38	CCV		1		12/01/11 16:45

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Maren Beery



Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 120111T2.1R.TXT
 Analyst1: EDL Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 39882

Calibration Std: STD48700 ICV Std: STD48624 Post Spike: STD48461
 ICSA: STD48570 ICSAB: STD48701 Int. Std: STD48702
 CCV: STD48699 LLCCV: _____

383433, 383496, 383480, 383509, 383510, 383515, 383549, 383550

Workgroups:

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
103	T2.120111.164858	WG383506-39	CCB		1		12/01/11 16:48
104	T2.120111.165221	L11110574-06	2566-C0028	1.316/50	1		12/01/11 16:52
105	T2.120111.165529	L11110574-07	2566-C0030	1.453/50	1		12/01/11 16:55
106	T2.120111.165838	L11110574-08	2566-C0032	1.3/50	1		12/01/11 16:58
107	T2.120111.170148	L11110574-09	2566-C0034	1.47/50	1		12/01/11 17:01
108	T2.120111.170455	L11110574-10	2566-C0036	1.451/50	1		12/01/11 17:04
109	T2.120111.170812	L11110574-11	2566-C0038	1.323/50	1		12/01/11 17:08
110	T2.120111.171129	L11110574-12	2566-C0040	1.387/50	1		12/01/11 17:11
111	T2.120111.171445	L11110574-13	2566-C0042	1.439/50	1		12/01/11 17:14
112	T2.120111.171753	L11110574-14	2566-C0044	1.347/50	1		12/01/11 17:17
113	T2.120111.172111	L11110574-15	2566-C0046	1.413/50	1		12/01/11 17:21
114	T2.120111.172426	WG383506-40	CCV		1		12/01/11 17:24
115	T2.120111.172735	WG383506-41	CCB		1		12/01/11 17:27
116	T2.120111.173104	L11110574-16	6140-C0008	1.398/50	1		12/01/11 17:31
117	T2.120111.173420	L11110574-17	6140-C0010	1.391/50	1		12/01/11 17:34
118	T2.120111.173738	L11110574-18	6512-C0006	1.377/50	1		12/01/11 17:37
119	T2.120111.174046	L11110574-19	6705-C0010	1.462/50	1		12/01/11 17:40
120	T2.120111.174402	WG383474-01	Reference Sample		1	L11110574-20	12/01/11 17:44
121	T2.120111.174710	WG383474-04	Matrix Spike	1.456/50	1	L11110574-20	12/01/11 17:47
122	T2.120111.175018	WG383474-05	Matrix Spike Duplica	1.456/50	1	L11110574-20	12/01/11 17:50
123	T2.120111.175332	WG383506-42	CCV		1		12/01/11 17:53
124	T2.120111.175642	WG383506-43	CCB		1		12/01/11 17:56
125	T2.120111.180012	WG383475-03	Method/Prep Blank	1/50	1		12/01/11 18:00
126	T2.120111.180334	WG383475-04	Laboratory Control S	1/50	1		12/01/11 18:03
127	T2.120111.180657	L11110574-21	7095-C0012	1.373/50	1		12/01/11 18:06
128	T2.120111.181005	L11110574-22	7095-C0014	1.413/50	1		12/01/11 18:10
129	T2.120111.181315	L11110574-23	7095-C0016	1.449/50	1		12/01/11 18:13
130	T2.120111.181625	L11110574-24	7095-C0018	1.367/50	1		12/01/11 18:16
131	T2.120111.181934	WG383510-01	Post Digestion Spike		1	L11110574-24	12/01/11 18:19
132	T2.120111.182243	WG383510-02	Serial Dilution		5	L11110574-24	12/01/11 18:22
133	T2.120111.182555	WG383510-02	Serial Dilution		25	L11110574-24	12/01/11 18:25
134	T2.120111.182914	WG383475-01	Reference Sample		1	L11110574-25	12/01/11 18:29
135	T2.120111.183234	WG383506-44	CCV		1		12/01/11 18:32
136	T2.120111.183543	WG383506-45	CCB		1		12/01/11 18:35

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 120111T2.1R.TXT
 Analyst1: EDL Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 39882

Calibration Std: STD48700 ICV Std: STD48624 Post Spike: STD48461
 ICSA: STD48570 IC SAB: STD48701 Int. Std: STD48702
 CCV: STD48699 LLCCV: _____

383433, 383496, 383480, 383509, 383510, 383515, 383549, 383550

Workgroups:

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
137	T2.120111.183915	WG383475-05	Matrix Spike	1.32/50	1	L11110574-25	12/01/11 18:39
138	T2.120111.184225	WG383475-06	Matrix Spike Duplica	1.32/50	1	L11110574-25	12/01/11 18:42
139	T2.120111.184535	L11110574-28	7124-C0012	1.315/50	1		12/01/11 18:45
140	T2.120111.184845	L11110574-29	7127-C0016	1.414/50	1		12/01/11 18:48
141	T2.120111.185157	L11110574-30	7130-C0013	1.344/50	1		12/01/11 18:51
142	T2.120111.185523	L11110574-31	7130-C0015	1.303/50	1		12/01/11 18:55
143	T2.120111.185840	L11110574-32	7413-C0014	1.363/50	1		12/01/11 18:58
144	T2.120111.190156	L11110574-33	7413-C0016	1.425/50	1		12/01/11 19:01
145	T2.120111.190512	L11110574-34	8029-C0013	1.488/50	1		12/01/11 19:05
146	T2.120111.190829	L11110574-35	8143-C0012	1.379/50	1		12/01/11 19:08
147	T2.120111.191154	WG383506-46	CCV		1		12/01/11 19:11
148	T2.120111.191505	WG383506-47	CCB		1		12/01/11 19:15
149	T2.120111.191834	L11110574-36	8143-C0014		1		12/01/11 19:18
150	T2.120111.192141	L11110574-37	8143-C0016		1		12/01/11 19:21
151	T2.120111.192500	L11110574-38	8143-C0018		1		12/01/11 19:25
152	T2.120111.192816	WG383475-02	Reference Sample		1	L11110701-01	12/01/11 19:28
153	T2.120111.193133	WG383475-07	Matrix Spike		1	L11110701-01	12/01/11 19:31
154	T2.120111.193441	WG383475-08	Matrix Spike Duplica		1	L11110701-01	12/01/11 19:34
155	T2.120111.193748	L11110701-04	6514-C0015		1		12/01/11 19:37
156	T2.120111.194112	WG383506-48	CCV		1		12/01/11 19:41
157	T2.120111.194422	WG383506-49	CCB		1		12/01/11 19:44
158	T2.120111.194734	WG383476-02	Method/Prep Blank		1		12/01/11 19:47
159	T2.120111.195058	WG383476-03	Laboratory Control S		1		12/01/11 19:50
160	T2.120111.195419	L11110701-05	6514-C0017		1		12/01/11 19:54
161	T2.120111.195728	L11110701-06	6631-C0016		1		12/01/11 19:57
162	T2.120111.200047	L11110701-07	6877-C0016		1		12/01/11 20:00
163	T2.120111.200356	L11110701-08	6896-C0009		1		12/01/11 20:03
164	T2.120111.200704	L11110701-09	6989-C0016		1		12/01/11 20:07
165	T2.120111.201015	WG383515-01	Post Digestion Spike		1	L11110701-09	12/01/11 20:10
166	T2.120111.201323	WG383515-02	Serial Dilution		5	L11110701-09	12/01/11 20:13
167	T2.120111.201638	WG383515-02	Serial Dilution		25	L11110701-09	12/01/11 20:16
168	T2.120111.202001	WG383506-50	CCV		1		12/01/11 20:20
169	T2.120111.202312	WG383506-51	CCB		1		12/01/11 20:23
170	T2.120111.202638	L11110701-10	6995-C0007		1		12/01/11 20:26

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 120111T2.1R.TXT
 Analyst1: EDL Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 39882

Calibration Std: STD48700 ICV Std: STD48624 Post Spike: STD48461
 ICSA: STD48570 ICSAB: STD48701 Int. Std: STD48702
 CCV: STD48699 LLCCV: _____

383433, 383496, 383480, 383509, 383510, 383515, 383549, 383550

Workgroups:

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
171	T2.120111.202954	L11110701-11	6995-C0009		1		12/01/11 20:29
172	T2.120111.203303	L11110701-12	7150-C0007		1		12/01/11 20:33
173	T2.120111.203612	WG383476-01	Reference Sample		1	L11110701-13	12/01/11 20:36
174	T2.120111.203922	WG383476-04	Matrix Spike		1	L11110701-13	12/01/11 20:39
175	T2.120111.204233	WG383476-05	Matrix Spike Duplica		1	L11110701-13	12/01/11 20:42
176	T2.120111.204542	L11110701-16	7161-C0015		1		12/01/11 20:45
177	T2.120111.204859	L11110701-17	7195-C0007		1		12/01/11 20:48
178	T2.120111.205212	L11110701-18	7195-C0009		1		12/01/11 20:52
179	T2.120111.205537	L11110701-19	7279-C0009		1		12/01/11 20:55
180	T2.120111.205904	WG383506-52	CCV		1		12/01/11 20:59
181	T2.120111.210214	WG383506-53	CCB		1		12/01/11 21:02
182	T2.120111.210542	L11110701-20	7279-C0013		1		12/01/11 21:05
183	T2.120111.210858	L11110870-01	6651-C0071		1		12/01/11 21:08
184	T2.120111.211214	L11110870-02	6651-C0073		1		12/01/11 21:12
185	T2.120111.211530	L11110870-03	6651-C0075		1		12/01/11 21:15
186	T2.120111.211855	L11110870-04	8153-C0007		1		12/01/11 21:18
187	T2.120111.212203	L11110870-05	8199-C0018		1		12/01/11 21:22
188	T2.120111.212512	L11110870-06	8199-C0020		1		12/01/11 21:25
189	T2.120111.212832	WG383506-54	CCV		1		12/01/11 21:28
190	T2.120111.213143	WG383506-55	CCB		1		12/01/11 21:31
191	T2.120111.213510	WG383331-02	Method/Prep Blank	1/50	1		12/01/11 21:35
192	T2.120111.213830	WG383331-03	Laboratory Control S	1/50	1		12/01/11 21:38
193	T2.120111.214153	L11110541-09	31149-C0024	1.43/50	1		12/01/11 21:41
194	T2.120111.214501	L11110541-10	31149-C0025	1.376/50	1		12/01/11 21:45
195	T2.120111.214810	L11110541-11	31149-C0026	1.481/50	1		12/01/11 21:48
196	T2.120111.215127	L11110541-12	31149-C0027	1.338/50	1		12/01/11 21:51
197	T2.120111.215438	L11110541-13	31487-C0001	1.359/50	1		12/01/11 21:54
198	T2.120111.215745	WG383549-01	Post Digestion Spike		1	L11110541-13	12/01/11 21:57
199	T2.120111.220054	WG383549-02	Serial Dilution		5	L11110541-13	12/01/11 22:00
200	T2.120111.220407	WG383549-02	Serial Dilution		25	L11110541-13	12/01/11 22:04
201	T2.120111.220730	WG383506-56	CCV		1		12/01/11 22:07
202	T2.120111.221040	WG383506-57	CCB		1		12/01/11 22:10
203	T2.120111.221406	L11110541-14	31487-C0002	1.349/50	1		12/01/11 22:14
204	T2.120111.221714	L11110541-15	31487-C0003	1.336/50	1		12/01/11 22:17

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 120111T2.1R.TXT
 Analyst1: EDL Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 39882

Calibration Std: STD48700 ICV Std: STD48624 Post Spike: STD48461
 ICSA: STD48570 IC SAB: STD48701 Int. Std: STD48702
 CCV: STD48699 LLCCV: _____

383433, 383496, 383480, 383509, 383510, 383515, 383549, 383550

Workgroups:

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
205	T2.120111.222022	L11110541-16	31487-C0004	1.392/50	1		12/01/11 22:20
206	T2.120111.222330	L11110541-17	31487-C0005	1.431/50	1		12/01/11 22:23
207	T2.120111.222639	L11110541-18	31487-C0006	1.305/50	1		12/01/11 22:26
208	T2.120111.222949	L11110541-19	31487-C0007	1.342/50	1		12/01/11 22:29
209	T2.120111.223257	L11110541-20	31487-C0008	1.396/50	1		12/01/11 22:32
210	T2.120111.223604	L11110541-21	31487-C0009	1.437/50	1		12/01/11 22:36
211	T2.120111.223913	L11110541-22	31487-C0010	1.373/50	1		12/01/11 22:39
212	T2.120111.224222	L11110541-23	31487-C0011	1.376/50	1		12/01/11 22:42
213	T2.120111.224534	WG383506-58	CCV		1		12/01/11 22:45
214	T2.120111.224844	WG383506-59	CCB		1		12/01/11 22:48
215	T2.120111.225210	WG383331-01	Reference Sample		1	L11110541-24	12/01/11 22:52
216	T2.120111.225517	WG383331-04	Matrix Spike	1.393/50	1	L11110541-24	12/01/11 22:55
217	T2.120111.225824	WG383331-05	Matrix Spike Duplica	1.393/50	1	L11110541-24	12/01/11 22:58
218	T2.120111.230134	L11110541-27	31487-C0013	1.434/50	1		12/01/11 23:01
219	T2.120111.230442	L11110541-28	31487-C0014	1.313/50	1		12/01/11 23:04
220	T2.120111.230750	L11110541-29	31487-C0015	1.431/50	1		12/01/11 23:07
221	T2.120111.231100	L11110541-30	31487-C0016	1.369/50	1		12/01/11 23:11
222	T2.120111.231415	WG383506-60	CCV		1		12/01/11 23:14
223	T2.120111.231726	WG383506-61	CCB		1		12/01/11 23:17
224	T2.120111.232054	WG383332-02	Method/Prep Blank	1/50	1		12/01/11 23:20
225	T2.120111.232417	WG383332-03	Laboratory Control S	1/50	1		12/01/11 23:24
226	T2.120111.232739	L11110541-31	31487-C0017	1.355/50	1		12/01/11 23:27
227	T2.120111.233049	L11110541-32	31487-C0018	1.422/50	1		12/01/11 23:30
228	T2.120111.233358	L11110541-33	31487-C0019	1.435/50	1		12/01/11 23:33
229	T2.120111.233706	L11110541-34	31487-C0020	1.324/50	1		12/01/11 23:37
230	T2.120111.234015	L11110541-35	31487-C0021	1.448/50	1		12/01/11 23:40
231	T2.120111.234327	WG383550-01	Post Digestion Spike		1	L11110541-35	12/01/11 23:43
232	T2.120111.234636	WG383550-02	Serial Dilution		5	L11110541-35	12/01/11 23:46
233	T2.120111.234949	WG383550-02	Serial Dilution		25	L11110541-35	12/01/11 23:49
234	T2.120111.235313	WG383506-62	CCV		1		12/01/11 23:53
235	T2.120111.235622	WG383506-63	CCB		1		12/01/11 23:56
236	T2.120111.235951	L11110541-36	31487-C0022	1.332/50	1		12/01/11 23:59
237	T2.120211.000303	L11110541-37	31487-C0023	1.323/50	1		12/02/11 00:03
238	T2.120211.000615	L11110541-38	31487-C0024	1.428/50	1		12/02/11 00:06

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Microbac Laboratories Inc.
Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 120111T2.1R.TXT
 Analyst1: EDL Analyst2: N/A
 Method: 6010 SOP: ME600G Rev: 2
 Maintenance Log ID: 39882

Calibration Std: STD48700 ICV Std: STD48624 Post Spike: STD48461
 ICSA: STD48570 ICSAB: STD48701 Int. Std: STD48702
 CCV: STD48699 LLCCV: _____

383433, 383496, 383480, 383509, 383510, 383515, 383549, 383550

Workgroups:

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
239	T2.120211.000925	L11110541-39	31487-C0025	1.41/50	1		12/02/11 00:09
240	T2.120211.001252	L11110541-40	31487-C0026	1.384/50	1		12/02/11 00:12
241	T2.120211.001618	L11110541-41	31487-C0027	1.44/50	1		12/02/11 00:16
242	T2.120211.001927	L11110541-42	31487-C0028	1.474/50	1		12/02/11 00:19
243	T2.120211.002234	L11110541-43	31487-C0029	1.312/50	1		12/02/11 00:22
244	T2.120211.002544	L11110541-44	31488-C0001	1.471/50	1		12/02/11 00:25
245	T2.120211.002854	L11110541-45	31488-C0002	1.337/50	1		12/02/11 00:28
246	T2.120211.003209	WG383506-64	CCV		1		12/02/11 00:32
247	T2.120211.003520	WG383506-65	CCB		1		12/02/11 00:35
248	T2.120211.003843	L11110541-46	31488-C0003		1	WG383332-01	12/02/11 00:38
249	T2.120211.004152	L11110541-47	31488-C0003-MS	1.353/50	1	WG383332-04	12/02/11 00:41
250	T2.120211.004500	L11110541-48	31488-C0003-MSD	1.353/50	1	WG383332-05	12/02/11 00:45
251	T2.120211.004810	L11110542-01	31488-C0004	1.359/50	1		12/02/11 00:48
252	T2.120211.005120	L11110542-02	31488-C0005		1		12/02/11 00:51
253	T2.120211.005441	L11110542-03	31488-C0006	1.394/50	1		12/02/11 00:54
254	T2.120211.005752	L11110542-04	31488-C0007		1		12/02/11 00:57
255	T2.120211.010112	WG383506-66	CCV		1		12/02/11 01:01
256	T2.120211.010422	WG383506-67	CCB		1		12/02/11 01:04

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Microbac Laboratories Inc.

Data Checklist

Date: 01-DEC-2011
 Analyst: KHR
 Analyst: NA
 Method: 6010
 Instrument: PE-ICP2
 Curve Workgroup: 383535
 Runlog ID: 44052
 Analytical Workgroups: 383330, 383504, 383338, 382964, 383402

Calibration/Linearity	X
ICV/CCV	X
ICV RSD <= 3% (EPA 200.7 only)	
ICB/CCB	X
ICSA/ICSAB	X
CRI	
Blank/LCS	X
MS/MSD	X
Post Spike/Serial Dilution	X
Upload Results	X
Data Qualifiers	
Generate PDF Instrument Data	X
Sign/Annotate PDF Data	X
Upload Curve Data	X
Workgroup Forms	
Case Narrative	X
Client Forms	X
Level X	
Level 3	
Level 4	493, 686, 704, 707, 726, 603
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Primary Reviewer	KHR
Secondary Reviewer	MMB
Comments	

Primary Reviewer:
02-DEC-2011

Secondary Reviewer:
05-DEC-2011

Kim H. Rhodes

Maren Beery



Microbac Laboratories Inc.

Data Checklist

Date: 01-DEC-2011
 Analyst: EDL
 Analyst: NA
 Method: 6010
 Instrument: ICP-THERMO2
 Curve Workgroup: 383506
 Runlog ID: 44051
 Analytical Workgroups: 383433, 383496, 383480, 383509, 383510, 383549, 383550

Calibration/Linearity	X
ICV/CCV	X
ICV RSD <= 3% (EPA 200.7 only)	
ICB/CCB	X
ICSA/ICSAB	X
CRI	
Blank/LCS	X
MS/MSD	X
Post Spike/Serial Dilution	X
Upload Results	X
Data Qualifiers	
Generate PDF Instrument Data	X
Sign/Annotate PDF Data	X
Upload Curve Data	X
Workgroup Forms	X
Case Narrative	0543, 0916, 0926, 0546, 0906, 0574, 0701, 0541, 0542
Client Forms	X
Level X	
Level 3	0916
Level 4	0543, 0926, 0546, 0574, 0701, 0541, 0542
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Primary Reviewer	SLP
Secondary Reviewer	MMB
Comments	

Primary Reviewer:
02-DEC-2011

Shari L. Pabon

Secondary Reviewer:
02-DEC-2011

Maren Berry



Microbac Laboratories Inc.
HOLDING TIMES
 EQUIVALENT TO AFCEE FORM 9

Analytical Method:6010B
 Login Number:L11110916

AAB#:WG383504

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
EB-SOIL-11292011	18	11/29/11					12/01/11	1.8	180		12/01/11	1.9	180	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
 PDF File ID: 2241315
 Report generated 12/01/2011 15:05



Microbac Laboratories Inc.
HOLDING TIMES
 EQUIVALENT TO AFCEE FORM 9

Analytical Method:6010B
 Login Number:L11110916

AAB#:WG383433

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
DE-35A-11292011	01	11/29/11					11/30/11	1.1	180		12/01/11	2	180	
DE-35B-11292011	02	11/29/11					11/30/11	1.1	180		12/01/11	2	180	
DE-35C-11292011	03	11/29/11					11/30/11	1.1	180		12/01/11	2	180	
DE-35D-11292011	04	11/29/11					11/30/11	1.1	180		12/01/11	2	180	
DE-36A-11292011	05	11/29/11					11/30/11	1	180		12/01/11	1.9	180	
DE-36B-11292011	06	11/29/11					11/30/11	1	180		12/01/11	1.9	180	
DE-36C-11292011	07	11/29/11					11/30/11	1	180		12/01/11	1.9	180	
DE-36D-11292011	08	11/29/11					11/30/11	1	180		12/01/11	1.9	180	
DE-36E-11292011	09	11/29/11					11/30/11	1	180		12/01/11	1.9	180	
DE-37A-11292011	10	11/29/11					11/30/11	.9	180		12/01/11	1.9	180	
DE-37B-11292011	11	11/29/11					11/30/11	.9	180		12/01/11	1.9	180	
DE-37C-11292011	12	11/29/11					11/30/11	.9	180		12/01/11	1.9	180	
DE-37D-11292011	13	11/29/11					11/30/11	.9	180		12/01/11	1.9	180	
DE-37E-11292011	14	11/29/11					11/30/11	.9	180		12/01/11	1.9	180	
DE-37E-11292011-MS	15	11/29/11					11/30/11	.9	180		12/01/11	1.9	180	
DE-37E-11292011-MSD	16	11/29/11					11/30/11	.9	180		12/01/11	1.9	180	
DUP-SOIL-11292011	17	11/29/11					11/30/11	1.6	180		12/01/11	2.6	180	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
 PDF File ID: 2241071
 Report generated 12/01/2011 15:02



METHOD BLANK SUMMARY

Login Number: L11110916
Blank File ID: P2.120111.131058
Prep Date: 12/01/11 12:34
Analyzed Date: 12/01/11 13:10
Analyst: KHR

Work Group: WG383504
Blank Sample ID: WG383485-03
Instrument ID: PE-ICP2
Method: 6010B

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG383485-04	P2.120111.131749	12/01/11 13:17	01
EB-SOIL-11292011	L11110916-18	P2.120111.140559	12/01/11 14:05	01

Report Name: BLANK_SUMMARY
PDF File ID: 2241318
Report generated 12/01/2011 15:06



METHOD BLANK SUMMARY

Login Number: L11110916 Work Group: WG383433
 Blank File ID: T2.120111.114333 Blank Sample ID: WG383396-02
 Prep Date: 11/30/11 14:05 Instrument ID: ICP-THERMO2
 Analyzed Date: 12/01/11 11:43 Method: 6010B
 Analyst: EDL

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG383396-03	T2.120111.114654	12/01/11 11:46	01
DE-35A-11292011	L11110916-01	T2.120111.120243	12/01/11 12:02	01
DE-35B-11292011	L11110916-02	T2.120111.122237	12/01/11 12:22	01
DE-35C-11292011	L11110916-03	T2.120111.122555	12/01/11 12:25	01
DE-35D-11292011	L11110916-04	T2.120111.122912	12/01/11 12:29	01
DE-36A-11292011	L11110916-05	T2.120111.123231	12/01/11 12:32	01
DE-36B-11292011	L11110916-06	T2.120111.123550	12/01/11 12:35	01
DE-36C-11292011	L11110916-07	T2.120111.123910	12/01/11 12:39	01
DE-36D-11292011	L11110916-08	T2.120111.124228	12/01/11 12:42	01
DE-36E-11292011	L11110916-09	T2.120111.124546	12/01/11 12:45	01
DE-37A-11292011	L11110916-10	T2.120111.124905	12/01/11 12:49	01
DE-37B-11292011	L11110916-11	T2.120111.125224	12/01/11 12:52	01
DE-37C-11292011	L11110916-12	T2.120111.130225	12/01/11 13:02	01
DE-37D-11292011	L11110916-13	T2.120111.130544	12/01/11 13:05	01
DE-37E-11292011	L11110916-14	T2.120111.130903	12/01/11 13:09	01
DE-37E-11292011-MS	L11110916-15	T2.120111.131223	12/01/11 13:12	01
DE-37E-11292011-MSD	L11110916-16	T2.120111.131539	12/01/11 13:15	01
DUP-SOIL-11292011	L11110916-17	T2.120111.131855	12/01/11 13:18	01

Report Name: BLANK_SUMMARY
 PDF File ID: 2241072
 Report generated 12/01/2011 15:03



Microbac Laboratories Inc.
METHOD BLANK REPORT

Login Number: L11110916 Prep Date: 12/01/11 12:34 Sample ID: WG383485-03
Instrument ID: PE-ICP2 Run Date: 12/01/11 13:10 Prep Method: 3005A
File ID: P2.120111.131058 Analyst: KHR Method: 6010B
Workgroup (AAB#): WG383504 Matrix: Water Units: mg/L
Contract #: Cal ID: PE-ICP-01-DEC-11

Analytes	MDL	RL	Concentration	Dilution	Qualifier
Arsenic, Total	0.00500	0.0100	0.00500	1	U
Cadmium, Total	0.000250	0.000500	0.000250	1	U

MDL Method Detection Limit
RL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name: BLANK
PDF ID: 2241321
01-DEC-2011 15:06



Microbac Laboratories Inc.
METHOD BLANK REPORT

Login Number: L11110916 Prep Date: 11/30/11 14:05 Sample ID: WG383396-02
Instrument ID: ICP-THERMO2 Run Date: 12/01/11 11:43 Prep Method: 3051A
File ID: T2.120111.114333 Analyst: EDL Method: 6010B
Workgroup (AAB#): WG383433 Matrix: Soil Units: mg/kg
Contract #: Cal ID: ICP-TH-01-DEC-11

Analytes	MDL	RL	Concentration	Dilution	Qualifier
Arsenic, Total	2.50	5.00	2.50	1	U
Cadmium, Total	0.250	0.500	0.250	1	U

MDL Method Detection Limit
RL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name: BLANK
PDF ID: 2241073
01-DEC-2011 15:03



Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L11110916 Run Date: 12/01/2011 Sample ID: WG383485-04
Instrument ID: PE-ICP2 Run Time: 13:17 Prep Method: 3005A
File ID: P2.120111.131749 Analyst: KHR Method: 6010B
Workgroup (AAB#): WG383504 Matrix: Water Units: mg/L
QC Key: WATERLOO Lot#: STD48462 Cal ID: PE-ICP-01-DEC-11

Analytes	Expected	Found	% Rec	LCS Limits	Q
Arsenic, Total	0.200	0.190	95.1	85 - 115	
Cadmium, Total	0.0250	0.0231	92.6	85 - 115	

LCS - Modified 03/06/2008
PDF File ID: 2241324
Report generated: 12/01/2011 15:06



Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L11110916 Run Date: 12/01/2011 Sample ID: WG383396-03
Instrument ID: ICP-THERMO2 Run Time: 11:46 Prep Method: 3051A
File ID: T2.120111.114654 Analyst: EDL Method: 6010B
Workgroup (AAB#): WG383433 Matrix: Soil Units: mg/kg
QC Key: WATERLOO Lot#: STD48462 Cal ID: ICP-TH-01-DEC-11

Analytes	Expected	Found	% Rec	LCS Limits	Q
Arsenic, Total	10.0	9.40	94.0	80 - 120	
Cadmium, Total	1.25	1.22	97.7	80 - 120	

LCS - Modified 03/06/2008
PDF File ID: 2241074
Report generated: 12/01/2011 15:03



MS/MSD REPORT

Loginum: L11110916 Cal ID: ICP-THERMO2- 01-DEC-11 Worknum: WG383433
 Instrument ID: ICP-THERMO2 Contract #: _____ Prep Method: 3051A
 Parent ID: L11110916-14 File ID: T2.120111.130903 Dil: 1 Method: 6010B
 Sample ID: L11110916-15 MS File ID: T2.120111.131223 Dil: 1 Matrix: Soil
 Sample ID: L11110916-16 MSD File ID: T2.120111.131539 Dil: 1 Units: mg/kg
 Percent Solid: 91.4

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Arsenic, Total	3.68	8.26	10.1	77.5	8.26	11.3	92.8	11.8	80 - 120	20	*
Cadmium, Total	0.237	1.03	1.07	80.5	1.03	1.17	90.1	8.86	80 - 120	20	

* FAILS %REC LIMIT

FAILS RPD LIMIT



MATRIX SPIKE AND MATRIX SPIKE DUP (MS/MSD)

Loginnum: L11110916 Cal ID: PE-ICP2- Worknum: WG383504
 Instrument ID: PE-ICP2 Contract #: _____ Method: 6010B
 Parent ID: WG383485-01 File ID: P2.120111.132444 Dil: 1 Matrix: WATER
 Sample ID: WG383485-05 MS File ID: P2.120111.133135 Dil: 1 Units: mg/L
 Sample ID: WG383485-06 MSD File ID: P2.120111.133830 Dil: 1

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Arsenic, Total	ND	0.200	0.193	96.7	0.200	0.196	98.2	1.53	85 - 115	20	
Cadmium, Total	ND	0.0250	0.0236	94.3	0.0250	0.0237	94.6	0.328	85 - 115	20	

* FAILS %REC LIMIT

FAILS RPD LIMIT

NOTE: This is an internal quality control sample.

MATRIX SPIKE AND MATRIX SPIKE DUP (MS/MSD)

Loginnum: L11110916 Cal ID: ICP-THERMO2 - Worknum: WG383433
 Instrument ID: ICP-THERMO2 Contract #: _____ Method: 6010B
 Parent ID: WG383396-01 File ID: T2.120111.130903 Dil: 1 Matrix: SOLID
 Sample ID: WG383396-04 MS File ID: T2.120111.131223 Dil: 1 Units: mg/kg
 Sample ID: WG383396-05 MSD File ID: T2.120111.131539 Dil: 1 Percent Solid: 91.4

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Arsenic, Total	3.68	8.26	10.1	77.5	8.26	11.3	92.8	11.8	80 - 120	20	*
Cadmium, Total	0.237	1.03	1.07	80.5	1.03	1.17	90.1	8.86	80 - 120	20	

* FAILS %REC LIMIT

FAILS RPD LIMIT

NOTE: This is an internal quality control sample.

Microbac Laboratories Inc.
Serial Dilution Report

Login: L11110916 Worknum: WG383504
Instrument: PE-ICP2 Method: 6010B
Serial Dil: WG383504-02 File ID: P2.120111.135907 Dil: 5 Units: mg/L
Sample: L11110860-11 File ID: P2.120111.134524 Dil: 1

Analyte	Sample	Qual	Serial Dil	Qual	% Diff	Q
Arsenic	ND	U	ND	U		
Cadmium	ND	U	ND	U		

U = Result is below MDL.
F = Result is greater than or equal to MDL and less than the RL.
X = Result is greater than or equal to RL and less than 50 times the MDL.
E = %D exceeds control limit of 10% and initial sample result is greater than or equal to 50 times the MDL.

SERIAL_DIL - Modified 09/22/2008
PDF File ID: 2241309
12/01/2011 15:06



Microbac Laboratories Inc.
Serial Dilution Report

Login: L11110916 Worknum: WG383433
Instrument: ICP-THERMO2 Method: 6010B
Serial Dil: WG383433-02 File ID: T2.120111.120918 Dil: 5 Units: mg/L
Sample: L11110916-01 File ID: T2.120111.120243 Dil: 1

Analyte	Sample	Qual	Serial Dil	Qual	% Diff	Q
Arsenic	0.587	X	0.591	X	0.61	
Cadmium	0.0143	X	ND	U		

U = Result is below MDL.

F = Result is greater than or equal to MDL and less than the RL.

X = Result is greater than or equal to RL and less than 50 times the MDL.

E = %D exceeds control limit of 10% and initial sample result is greater than or equal to 50 times the MDL.

SERIAL_DIL - Modified 09/22/2008

PDF File ID: 2241069

12/01/2011 15:01



Microbac Laboratories Inc.
POST SPIKE REPORT

Sample Login ID: L11110916 Worknum: WG383504
 Instrument ID: PE-ICP2 Method: 6010B
 Post Spike ID: WG383504-01 File ID: P2.120111.135215 Dil: 1 Units: mg/L
 Sample ID: L11110860-11 File ID: P2.120111.134524 Dil: 1 Matrix: Water

Analyte	Post Spike Result	C	Sample Result	C	Spike Added(SA)	% R	Control Limit %R	Q
ARSENIC	0.189		0	U	.2	94.7	75 - 125	
CADMIUM	0.0230		0	U	.025	92.0	75 - 125	

N = % Recovery exceeds control limits
 F = Result is between MDL and RL
 U = Sample result is below MDL. A value of zero is used in the calculation

POST_SPIKE - Modified 03/06/2008
 PDF File ID: 2241312
 Report generated: 12/01/2011 15:06



Microbac Laboratories Inc.
POST SPIKE REPORT

Sample Login ID: L11110916 Worknum: WG383433
 Instrument ID: ICP-THERMO2 Method: 6010B
 Post Spike ID: WG383433-01 File ID: T2.120111.120601 Dil: 1 Units: mg/L
 Sample ID: L11110916-01 File ID: T2.120111.120243 Dil: 1 Matrix: Soil

Analyte	Post Spike Result	C	Sample Result	C	Spike Added(SA)	% R	Control Limit %R	Q
ARSENIC	0.728		0.587		.2	99.7	75 - 125	
CADMIUM	0.0377		0.0143		.025	99.5	75 - 125	

N = % Recovery exceeds control limits
 F = Result is between MDL and RL
 U = Sample result is below MDL. A value of zero is used in the calculation



Microbac Laboratories Inc.
Initial Calibration Summary

Login: L11110916 Workgroup (AAB#): WG383504
 Analytical Method: 6010B Instrument ID: PE-ICP2
 ICAL Worknum: WG383535 Initial Calibration Date: 01-DEC-2011 09:17

	WG383535-01		WG383535-02		WG383535-03		WG383535-04		WG383535-05		R	Q
	Conc	INT	Conc	INT	Conc	INT	Conc	INT	Conc	INT		
ARSENIC	0	0.102	NA	NA	.008	8.01	.4	391	.8	799	.999932	
CADMIUM	0	9.26	.0005	8.93	.001	18.9	.05	795	.1	1610	.999984	

INT = Instrument intensity
 R = Coefficient of correlation
 Q = Data Qualifier
 * = Out of Compliance; R < 0.995



Microbac Laboratories Inc.
Initial Calibration Summary

Login: L11110916 Workgroup (AAB#): WG383433
 Analytical Method: 6010B Instrument ID: ICP-THERMO2
 ICAL Worknum: WG383506 Initial Calibration Date: 01-DEC-2011 11:20

	WG383506-01		WG383506-02		WG383506-03		WG383506-04		WG383506-05		R	Q
	Conc	INT	Conc	INT	Conc	INT	Conc	INT	Conc	INT		
ARSENIC	0	-0.000270	NA	NA	.008	-0.0000200	.4	0.0139	.8	0.0285	.999928	
CADMIUM	0	0.000170	.0005	0.000500	.001	0.000930	.05	0.0364	.1	0.0734	.999969	

INT = Instrument intensity
 R = Coefficient of correlation
 Q = Data Qualifier
 * = Out of Compliance; R < 0.995



Microbac Laboratories Inc.
INITIAL CALIBRATION BLANK (ICB)

Login Number: L11110916 Run Date: 12/01/2011 Sample ID: WG383535-07
Instrument ID: PE-ICP2 Run Time: 09:31 Method: 6010B
File ID: P2.120111.093102 Analyst: KHR Units: mg/L
Workgroup (AAB#): WG383504 Cal ID: PE-ICP2 - 01-DEC-11
Matrix: WATER

Analytes	MDL	RDL	Concentration	Qualifier
ARSENIC	.005	.01	.005	U
CADMIUM	.00025	.0005	.00025	U

ICB - Modified 07/14/2009
PDF File ID: 2241335
Report generated 12/01/2011 15:05



Microbac Laboratories Inc.
INITIAL CALIBRATION BLANK (ICB)

Login Number: L11110916 Run Date: 12/01/2011 Sample ID: WG383506-07
Instrument ID: ICP-THERMO2 Run Time: 11:27 Method: 6010B
File ID: T2.120111.112707 Analyst: EDL Units: mg/L
Workgroup (AAB#): WG383433 Cal ID: ICP-THERM - 01-DEC-11
Matrix: SOIL

Analytes	MDL	RDL	Concentration	Qualifier
ARSENIC	.05	.1	.05	U
CADMIUM	.005	.01	.005	U

ICB - Modified 07/14/2009
PDF File ID: 2241081
Report generated 12/01/2011 15:04



Microbac Laboratories Inc.
CONTINUING CALIBRATION BLANK (CCB)

Login Number: L11110916 Run Date: 12/01/2011 Sample ID: WG383535-11
Instrument ID: PE-ICP2 Run Time: 09:56 Method: 6010B
File ID: P2.120111.095633 Analyst: KHR Units: mg/L
Workgroup (AAB#): WG383504 Cal ID: PE-ICP - 01-DEC-11
Matrix: WATER QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.00500	0.0100	0.00500	U
Cadmium	0.000250	0.000500	0.000250	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 2241338
Report generated 12/02/2011 08:09



Microbac Laboratories Inc.
CONTINUING CALIBRATION BLANK (CCB)

Login Number: L11110916 Run Date: 12/01/2011 Sample ID: WG383535-17
 Instrument ID: PE-ICP2 Run Time: 13:04 Method: 6010B
 File ID: P2.120111.130409 Analyst: KHR Units: mg/L
 Workgroup (AAB#): WG383504 Cal ID: PE-ICP - 01-DEC-11
 Matrix: WATER QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.00500	0.0100	0.00500	U
Cadmium	0.000250	0.000500	0.000250	U

U = Result is less than MDL.
 F = Result is between MDL and RL.
 * = Result is above RL.

CCB - Modified 03/05/2008
 PDF File ID: 2241338
 Report generated 12/02/2011 08:09



Microbac Laboratories Inc.
CONTINUING CALIBRATION BLANK (CCB)

Login Number: L11110916 Run Date: 12/01/2011 Sample ID: WG383535-19
Instrument ID: PE-ICP2 Run Time: 14:19 Method: 6010B
File ID: P2.120111.141946 Analyst: KHR Units: mg/L
Workgroup (AAB#): WG383504 Cal ID: PE-ICP - 01-DEC-11
Matrix: WATER QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.00500	0.0100	0.00500	U
Cadmium	0.000250	0.000500	0.000250	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 2241338
Report generated 12/02/2011 08:09



Microbac Laboratories Inc.
CONTINUING CALIBRATION BLANK (CCB)

Login Number: L11110916 Run Date: 12/01/2011 Sample ID: WG383535-23
Instrument ID: PE-ICP2 Run Time: 14:45 Method: 6010B
File ID: P2.120111.144516 Analyst: KHR Units: mg/L
Workgroup (AAB#): WG383504 Cal ID: PE-ICP - 01-DEC-11
Matrix: WATER QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.00500	0.0100	0.00500	U
Cadmium	0.000250	0.000500	0.000250	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 2241338
Report generated 12/02/2011 08:09



Microbac Laboratories Inc.
CONTINUING CALIBRATION BLANK (CCB)

Login Number: L11110916 Run Date: 12/01/2011 Sample ID: WG383506-11
Instrument ID: ICP-THERMO2 Run Time: 11:40 Method: 6010B
File ID: T2.120111.114006 Analyst: EDL Units: mg/L
Workgroup (AAB#): WG383433 Cal ID: ICP-TH - 01-DEC-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 2241084
Report generated 12/01/2011 15:08



Microbac Laboratories Inc.
CONTINUING CALIBRATION BLANK (CCB)

Login Number: L11110916 Run Date: 12/01/2011 Sample ID: WG383506-23
Instrument ID: ICP-THERMO2 Run Time: 12:19 Method: 6010B
File ID: T2.120111.121910 Analyst: EDL Units: mg/L
Workgroup (AAB#): WG383433 Cal ID: ICP-TH - 01-DEC-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 2241084
Report generated 12/01/2011 15:08



Microbac Laboratories Inc.
CONTINUING CALIBRATION BLANK (CCB)

Login Number: L11110916 Run Date: 12/01/2011 Sample ID: WG383506-25
Instrument ID: ICP-THERMO2 Run Time: 12:58 Method: 6010B
File ID: T2.120111.125857 Analyst: EDL Units: mg/L
Workgroup (AAB#): WG383433 Cal ID: ICP-TH - 01-DEC-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 2241084
Report generated 12/01/2011 15:08



Microbac Laboratories Inc.
CONTINUING CALIBRATION BLANK (CCB)

Login Number: L11110916 Run Date: 12/01/2011 Sample ID: WG383506-29
Instrument ID: ICP-THERMO2 Run Time: 13:35 Method: 6010B
File ID: T2.120111.133508 Analyst: EDL Units: mg/L
Workgroup (AAB#): WG383433 Cal ID: ICP-TH - 01-DEC-11
Matrix: SOIL QAPP: WATERLOO

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.0500	0.100	0.0500	U
Cadmium	0.00500	0.0100	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 2241084
Report generated 12/01/2011 15:08



Microbac Laboratories Inc.
INITIAL CALIBRATION VERIFICATION (ICV)
(Alternate Source)

Login Number: L11110916 Run Date: 12/01/2011 Sample ID: WG383535-06
Instrument ID: PE-ICP2 Run Time: 09:24 Method: 6010B
File ID: P2.120111.092409 Analyst: KHR Units: mg/L
Workgroup (AAB#): WG383504 Cal ID: PE-ICP - 01-DEC-11
QC Key: WATERLOO

Analyte	Expected	Found	%REC	LIMITS	Q
Arsenic	.4	0.403	101	90 - 110	
Cadmium	.05	0.0489	97.7	90 - 110	

* Exceeds LIMITS Limit

ICV - Modified 03/06/2008
PDF File ID: 2241334
Report generated 12/01/2011 15:05



Microbac Laboratories Inc.
INITIAL CALIBRATION VERIFICATION (ICV)
(Alternate Source)

Login Number: L11110916 Run Date: 12/01/2011 Sample ID: WG383506-06
Instrument ID: ICP-THERMO2 Run Time: 11:23 Method: 6010B
File ID: T2.120111.112356 Analyst: EDL Units: mg/L
Workgroup (AAB#): WG383433 Cal ID: ICP-TH - 01-DEC-11
QC Key: WATERLOO

Analyte	Expected	Found	%REC	LIMITS	Q
Arsenic	.4	0.398	99.5	90 - 110	
Cadmium	.05	0.0506	101	90 - 110	

* Exceeds LIMITS Limit

ICV - Modified 03/06/2008
PDF File ID: 2241080
Report generated 12/01/2011 15:04



Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11110916 Run Date: 12/01/2011 Sample ID: WG383535-10
 Instrument ID: PE-ICP2 Run Time: 09:49 Method: 6010B
 File ID: P2.120111.094937 Analyst: KHR QC Key: WATERLOO
 Workgroup (AAB#): WG383504 Cal ID: PE-ICP - 01-DEC-11
 Matrix: WATER

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.394	mg/L	98.6	90 - 110	
Cadmium	0.0500	0.0486	mg/L	97.2	90 - 110	

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
 PDF File ID: 2241337
 Report generated 12/02/2011 08:09



Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11110916 Run Date: 12/01/2011 Sample ID: WG383535-16
 Instrument ID: PE-ICP2 Run Time: 12:57 Method: 6010B
 File ID: P2.120111.125712 Analyst: KHR QC Key: WATERLOO
 Workgroup (AAB#): WG383504 Cal ID: PE-ICP - 01-DEC-11
 Matrix: WATER

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.395	mg/L	98.9	90 - 110	
Cadmium	0.0500	0.0480	mg/L	95.9	90 - 110	

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
 PDF File ID: 2241337
 Report generated 12/02/2011 08:09



Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11110916 Run Date: 12/01/2011 Sample ID: WG383535-18
 Instrument ID: PE-ICP2 Run Time: 14:12 Method: 6010B
 File ID: P2.120111.141250 Analyst: KHR QC Key: WATERLOO
 Workgroup (AAB#): WG383504 Cal ID: PE-ICP - 01-DEC-11
 Matrix: WATER

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.397	mg/L	99.3	90 - 110	
Cadmium	0.0500	0.0487	mg/L	97.4	90 - 110	

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
 PDF File ID: 2241337
 Report generated 12/02/2011 08:09



Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11110916 Run Date: 12/01/2011 Sample ID: WG383535-22
 Instrument ID: PE-ICP2 Run Time: 14:38 Method: 6010B
 File ID: P2.120111.143820 Analyst: KHR QC Key: WATERLOO
 Workgroup (AAB#): WG383504 Cal ID: PE-ICP - 01-DEC-11
 Matrix: WATER

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.394	mg/L	98.5	90 - 110	
Cadmium	0.0500	0.0481	mg/L	96.1	90 - 110	

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
 PDF File ID: 2241337
 Report generated 12/02/2011 08:09



Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11110916 Run Date: 12/01/2011 Sample ID: WG383506-10
 Instrument ID: ICP-THERMO2 Run Time: 11:36 Method: 6010B
 File ID: T2.120111.113656 Analyst: EDL QC Key: WATERLOO
 Workgroup (AAB#): WG383433 Cal ID: ICP-TH - 01-DEC-11
 Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.409	mg/L	102	90 - 110	
Cadmium	0.0500	0.0516	mg/L	103	90 - 110	

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
 PDF File ID: 2241083
 Report generated 12/01/2011 15:08



Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11110916 Run Date: 12/01/2011 Sample ID: WG383506-22
 Instrument ID: ICP-THERMO2 Run Time: 12:16 Method: 6010B
 File ID: T2.120111.121600 Analyst: EDL QC Key: WATERLOO
 Workgroup (AAB#): WG383433 Cal ID: ICP-TH - 01-DEC-11
 Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.409	mg/L	102	90 - 110	
Cadmium	0.0500	0.0511	mg/L	102	90 - 110	

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
 PDF File ID: 2241083
 Report generated 12/01/2011 15:08



Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11110916 Run Date: 12/01/2011 Sample ID: WG383506-24
Instrument ID: ICP-THERMO2 Run Time: 12:55 Method: 6010B
File ID: T2.120111.125547 Analyst: EDL QC Key: WATERLOO
Workgroup (AAB#): WG383433 Cal ID: ICP-TH - 01-DEC-11
Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.412	mg/L	103	90 - 110	
Cadmium	0.0500	0.0518	mg/L	104	90 - 110	

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
PDF File ID: 2241083
Report generated 12/01/2011 15:08



Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L11110916 Run Date: 12/01/2011 Sample ID: WG383506-28
 Instrument ID: ICP-THERMO2 Run Time: 13:31 Method: 6010B
 File ID: T2.120111.133158 Analyst: EDL QC Key: WATERLOO
 Workgroup (AAB#): WG383433 Cal ID: ICP-TH - 01-DEC-11
 Matrix: SOIL

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Arsenic	0.400	0.408	mg/L	102	90 - 110	
Cadmium	0.0500	0.0509	mg/L	102	90 - 110	

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008
 PDF File ID: 2241083
 Report generated 12/01/2011 15:08



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11110916
Instrument ID: PE-ICP2
Sol. A: WG383535-08
Sol. AB: WG383535-09

File ID: P2.120111.093751
File ID: P2.120111.094344

Workgroup (AAB#): WG383504
Method: 6010B
Units: mg/L
Matrix: Water

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	0.00236	NS	0.250	0.246	98.4	
Cadmium	NS	-0.000310	NS	0.500	0.542	108	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11110916
Instrument ID: PE-ICP2
Sol. A: WG383535-20
Sol. AB: WG383535-21

File ID: P2.120111.142634
File ID: P2.120111.143227

Workgroup (AAB#): WG383504
Method: 6010B
Units: mg/L
Matrix: Water

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	0.0000800	NS	0.250	0.254	102	
Cadmium	NS	-0.000370	NS	0.500	0.546	109	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11110916
Instrument ID: ICP-THERMO2
Sol. A: WG383506-08
Sol. AB: WG383506-09

File ID: T2.120111.113029
File ID: T2.120111.113342

Workgroup (AAB#): WG383433
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.00664	NS	0.250	0.251	100	
Cadmium	NS	0.000720	NS	0.500	0.466	93.2	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L11110916
Instrument ID: ICP-THERMO2
Sol. A: WG383506-26
Sol. AB: WG383506-27

File ID: T2.120111.132526
File ID: T2.120111.132841

Workgroup (AAB#): WG383433
Method: 6010B
Units: mg/L
Matrix: Soil

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Arsenic	NS	-0.00348	NS	0.250	0.250	100	
Cadmium	NS	0.000730	NS	0.500	0.466	93.2	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.



Microbac Laboratories Inc.
 INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Login Number: L11110916

Date: 02/14/2011

Instrument ID: PE-ICP2

Method: 6010B

Analyte	Wave Length	AG	AL	AS	B	BA
ALUMINUM	396.15	0	0	0.206	0	0
ANTIMONY	206.84	0	0	-0.740	0	0
ARSENIC	188.98	0	0.0893	0	0	0
BARIUM	233.53	0	0.00932	0	0	0
BERYLLIUM	234.86	0	0	0	0	0
BORON	249.68	0	1.12	0	0	0
CADMIUM	228.80	0	0	6.68	0	0
CALCIUM	227.55	0	0.195	10.0	0	0
CHROMIUM	267.72	0	0.0250	0	0	0
COBALT	228.62	0	0	0	0	0.337
COPPER	327.39	0	0	0	0	0
IRON	239.56	0	0	0	0	0
LEAD	220.35	0	-0.0210	0	0	0
LITHIUM	670.78	0	0	0	0	0
MAGNESIUM	279.08	0	0	0	0	0
MANGANESE	257.61	-0.185	0	-0.231	-0.0949	-0.230
MOLYBDENUM	202.03	0	0	0	0	0
NICKEL	231.60	0	0	0	0	0
POTASSIUM	766.49	0	0	0	0	0
SELENIUM	196.03	0	0.111	0	0	0
SILICON	251.61	0	0	0	0	0
SILVER	328.07	0	0	0	0	0
SODIUM	589.59	0	0	0	0	0
STRONTIUM	407.77	0	0	0	0	0
THALLIUM	190.80	0	0	0	0	0
TIN	189.93	0	0	0	0	0
TITANIUM	334.94	0	0	0	0	0
VANADIUM	290.88	0	0	0.200	0	0.0400
ZINC	206.20	0	0	0	0	0

CORR_FACTORS - Modified 03/05/2008
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Microbac Laboratories Inc.
 INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Login Number: L11110916
 Instrument ID: PE-ICP2

Date: 02/14/2011
 Method: 6010B

Analyte	Wave Length	BE	CA	CD	CO	CR
ALUMINUM	396.15	0	0	0	0	0
ANTIMONY	206.84	0	0	0	0	6.33
ARSENIC	188.98	0	0.0200	-0.0875	0	-5.90
BARIUM	233.53	0	0	0	0	0
BERYLLIUM	234.86	0	0	0	0	-0.0733
BORON	249.68	0	0	24.1	5.90	1.50
CADMIUM	228.80	0	0	0	-10.7	0
CALCIUM	227.55	0	0	0	300	0
CHROMIUM	267.72	0	0	0	0	0
COBALT	228.62	0	0	0	0	-0.244
COPPER	327.39	0	0	0	0.380	-0.0400
IRON	239.56	0	0	0	1.91	0
LEAD	220.35	0	-0.0480	0	0.116	-0.0700
LITHIUM	670.78	0	0	0	0	0
MAGNESIUM	279.08	0	0	0	0	0
MANGANESE	257.61	-1.04	0	-0.755	-0.0418	-0.110
MOLYBDENUM	202.03	0	0	0	0	0
NICKEL	231.60	0	0	0	-0.566	0
POTASSIUM	766.49	0	0	0	0	0
SELENIUM	196.03	0	-0.250	0	-1.52	0
SILICON	251.61	0	0	0	0	0
SILVER	328.07	0	0	0	0	0
SODIUM	589.59	0	0	0	0	0
STRONTIUM	407.77	0	0	0	0	0
THALLIUM	190.80	0	0.0900	0	3.48	0
TIN	189.93	0	0	0	0	0
TITANIUM	334.94	0	-0.0100	0	0	0.297
VANADIUM	290.88	0	0	0	0	0
ZINC	206.20	0	0	0	0	-3.64

CORR_FACTORS - Modified 03/05/2008
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 Report generated: 12/01/2011 15:05



Microbac Laboratories Inc.
 INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Login Number: L11110916

Date: 02/14/2011

Instrument ID: PE-ICP2

Method: 6010B

Analyte	Wave Length	CU	FE	K	LI	MG
ALUMINUM	396.15	0	-0.0800	0	0	0
ANTIMONY	206.84	0	0	0	0	0
ARSENIC	188.98	0	-0.139	0	0	0
BARIUM	233.53	0	0	0	0	0
BERYLLIUM	234.86	0	0.195	0	0	0
BORON	249.68	0	-4.66	0	0	0
CADMIUM	228.80	0	0.00130	0	0	0
CALCIUM	227.55	-2.00	-5.00	0	0	0.104
CHROMIUM	267.72	0	-0.000800	0	0	0
COBALT	228.62	0	0.0262	0	0	0
COPPER	327.39	0	-0.115	0	0.154	0
IRON	239.56	0	0	0	0	0.0276
LEAD	220.35	0.740	0.0440	0	0	0
LITHIUM	670.78	0	0	0	0	0
MAGNESIUM	279.08	0	0.540	0	0	0
MANGANESE	257.61	-0.0457	-0.0453	-0.0181	-0.794	0.0147
MOLYBDENUM	202.03	0	-0.0494	0	0	0
NICKEL	231.60	0	0	0	0	0
POTASSIUM	766.49	0	0	0	0	0
SELENIUM	196.03	0	-0.369	0	0	0
SILICON	251.61	0	0	0	0	0
SILVER	328.07	0.0717	0.0498	0	0	0
SODIUM	589.59	0	0	0	0	0
STRONTIUM	407.77	0	0.120	0	0	0
THALLIUM	190.80	0	0	0	0	0
TIN	189.93	0	0	0	0	0
TITANIUM	334.94	0	0	0	0	0
VANADIUM	290.88	0	0.134	0	0	0
ZINC	206.20	-0.200	0.0230	0	0	0

CORR_FACTORS - Modified 03/05/2008
 PDF File ID: 2241331
 Report generated: 12/01/2011 15:05



Microbac Laboratories Inc.
 INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Login Number: L11110916
 Instrument ID: PE-ICP2

Date: 02/14/2011
 Method: 6010B

Analyte	Wave Length	MN	MO	NA	NI	PB
ALUMINUM	396.15	0	13.5	0	0	0
ANTIMONY	206.84	0	-7.69	0	0	0
ARSENIC	188.98	0	6.00	0	0	0
BARIUM	233.53	0	-0.548	0	0	0
BERYLLIUM	234.86	-0.131	-1.50	0	-0.00974	0
BORON	249.68	0	-2.20	0	0	0
CADMIUM	228.80	0	-0.00900	0	-0.398	0
CALCIUM	227.55	0	-8.00	0	-900	0
CHROMIUM	267.72	0.434	-0.00100	0	0	0
COBALT	228.62	0	-0.125	0	0.129	0
COPPER	327.39	0	-0.0774	0	0.150	0.257
IRON	239.56	0.480	0	0	0	0.407
LEAD	220.35	0.100	-5.00	0	0.100	0
LITHIUM	670.78	0	0	0	0	0
MAGNESIUM	279.08	0	-5.00	0	0	0.0252
MANGANESE	257.61	0	-0.0482	-0.00916	-0.0340	-0.0413
MOLYBDENUM	202.03	-0.209	0	0	0.120	0
NICKEL	231.60	0	0	0	0	0
POTASSIUM	766.49	0	0	1.00	0	0
SELENIUM	196.03	0.451	0.300	0	0.0940	0
SILICON	251.61	0	15.0	0	0	0
SILVER	328.07	0.130	0.100	0	0	0
SODIUM	589.59	0	0	0	0	0
STRONTIUM	407.77	0	0	0	0	0
THALLIUM	190.80	-1.50	1.20	0	0	0
TIN	189.93	0	0	0	0	0
TITANIUM	334.94	0	0	0	0	0
VANADIUM	290.88	0	0.578	0	0	0
ZINC	206.20	0	0.180	0	-0.200	-0.100

CORR_FACTORS - Modified 03/05/2008
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 Report generated: 12/01/2011 15:05



Microbac Laboratories Inc.
 INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Login Number: L11110916
 Instrument ID: PE-ICP2

Date: 02/14/2011
 Method: 6010B

Analyte	Wave Length	SB	SE	SI	SN	SR
ALUMINUM	396.15	0	0	0	0	0
ANTIMONY	206.84	0	0	0	0	0
ARSENIC	188.98	0	0	0	0	0
BARIUM	233.53	0	0	0	0	0
BERYLLIUM	234.86	0	0	0	0	0
BORON	249.68	0	0	0	0	0
CADMIUM	228.80	0	0	0	0	0
CALCIUM	227.55	0	0	2.79	0	0
CHROMIUM	267.72	0	0	0	0	0
COBALT	228.62	0	0	0	0	0
COPPER	327.39	0	0.148	0	0	0
IRON	239.56	0	0	0	0	0
LEAD	220.35	-0.0100	0	0	0	0
LITHIUM	670.78	0	0	0	0	0
MAGNESIUM	279.08	0	-0.0924	0	0	0
MANGANESE	257.61	-0.0505	-0.0281	-0.185	-0.0445	-0.625
MOLYBDENUM	202.03	0	0	0	0	0
NICKEL	231.60	-0.0500	-0.0100	0	0	0
POTASSIUM	766.49	0	0	0	0	0
SELENIUM	196.03	0	0	0	0	0
SILICON	251.61	0	0	0	0	0
SILVER	328.07	0	0	0	0	0.200
SODIUM	589.59	0	0	0	0	0
STRONTIUM	407.77	0	0	0	0	0
THALLIUM	190.80	0	0	0	0	0
TIN	189.93	0	0	0	0	0
TITANIUM	334.94	0	0	0	0	0
VANADIUM	290.88	0	0	0	0	0
ZINC	206.20	-0.300	0	0	0	0

CORR_FACTORS - Modified 03/05/2008
 PDF File ID: 2241331
 Report generated: 12/01/2011 15:05



Microbac Laboratories Inc.
 INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Login Number: L11110916
 Instrument ID: PE-ICP2

Date: 02/14/2011
 Method: 6010B

Analyte	Wave Length	TI	TL	V	ZN
ALUMINUM	396.15	0	0	0	0
ANTIMONY	206.84	0	0	0.000100	0
ARSENIC	188.98	0	0	0.0930	0
BARIUM	233.53	0	0	-2.29	0
BERYLLIUM	234.86	0	0	0	0
BORON	249.68	0	0	0	0
CADMIUM	228.80	0	0	0.0800	0
CALCIUM	227.55	0	0	60.0	0
CHROMIUM	267.72	0	0	-0.567	-0.0400
COBALT	228.62	2.21	0	0	0
COPPER	327.39	-1.05	0	-0.700	-0.0613
IRON	239.56	0	0	0	0
LEAD	220.35	0	0	0.0560	0
LITHIUM	670.78	0	0	0	0
MAGNESIUM	279.08	0	0	0	0
MANGANESE	257.61	-0.00931	-0.0414	-0.0601	-0.0552
MOLYBDENUM	202.03	0	0	-0.288	0
NICKEL	231.60	0	0.617	0	0
POTASSIUM	766.49	0	0	0	0
SELENIUM	196.03	-0.220	0	-0.126	0
SILICON	251.61	0	0	0	0
SILVER	328.07	0	0	-1.67	0
SODIUM	589.59	0	0	0	0
STRONTIUM	407.77	0	0	0	0
THALLIUM	190.80	-12.0	0.617	-1.41	0
TIN	189.93	0	0	0	0
TITANIUM	334.94	0	0	0	0
VANADIUM	290.88	0	0	0	0
ZINC	206.20	0	0	-0.100	0

CORR_FACTORS - Modified 03/05/2008
 PDF File ID: 2241331
 Report generated: 12/01/2011 15:05



Microbac Laboratories Inc.
 INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Login Number: L11110916

Date: 01/25/2011

Instrument ID: ICP-THERMO2

Method: 6010B

Analyte	Wave Length	AL	AS	B	BA	BE
ALUMINUM	308.20	0	0	0	0	0
ANTIMONY	206.80	0.0000210	0	0	0	0
ARSENIC	189.00	0	0	0	0	0
BARIUM	455.40	0	0	0	0	0
BERYLLIUM	313.00	0	0	0	0	0
BORON	249.70	0	0	0	0	0
CADMIUM	228.80	0	0.00190	0	-0.000140	0
CALCIUM	422.70	0	0	0	0	0
CHROMIUM	267.70	0	0	0	0	0
COBALT	228.60	0	0	0	0	0
COPPER	224.70	0	0	0	0	0
IRON	261.20	0	0	0	0	0
LEAD	220.30	0.000335	0	0	0	0
LITHIUM	670.80	0	0	0	0	0
MAGNESIUM	279.10	0	0	0	0	0
MANGANESE	257.60	0	0	0	0	0
MOLYBDENUM	202.03	0	0	0	0	0
NICKEL	231.60	0	0	0	0	0
PHOSPHORUS	214.90	-0.000750	0	0	0	0
POTASSIUM	766.40	0	0	0	0	0
SELENIUM	196.00	-0.0000300	0	0	0	0
SILICON	212.40	0	0	0	0	0
SILVER	328.00	0	0	0	0	0
SODIUM	589.50	0	0	0	0	0
STRONTIUM	407.80	0	0	0	0	0
THALLIUM	190.80	-0.0000120	0	0	0	0
TIN	189.90	0	0	0	0	0
TITANIUM	337.30	0	0	0	0	0
VANADIUM	292.40	0	0	0	0	0
ZINC	206.20	0.0000420	0	0	0	0
ZIRCONIUM	339.20	0	0	0	0	0

CORR_FACTORS - Modified 03/05/2008
 PDF File ID: 2241078
 Report generated: 12/01/2011 15:04



Microbac Laboratories Inc.
 INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Login Number: L11110916
 Instrument ID: ICP-THERMO2

Date: 01/25/2011
 Method: 6010B

Analyte	Wave Length	CA	CO	CR	CU	FE
ALUMINUM	308.20	0	-0.000820	0	0	0
ANTIMONY	206.80	0	0	0.00950	0	0.0000560
ARSENIC	189.00	0	0	0.000490	0	-0.0000120
BARIUM	455.40	0	0	0	0	0
BERYLLIUM	313.00	0	0	0	0	0
BORON	249.70	0	0.00343	0	0	-0.000619
CADMIUM	228.80	0	-0.00200	0	0	-0.00000800
CALCIUM	422.70	0	0	0	0	0
CHROMIUM	267.70	0	0	0	0	0.0000530
COBALT	228.60	0	0	0.000108	0	0
COPPER	224.70	0	0.0000770	0	0	0.000196
IRON	261.20	0	0	0	0	0
LEAD	220.30	0	-0.0000930	-0.000172	0.000809	0
LITHIUM	670.80	0	0	0	0	0
MAGNESIUM	279.10	0	0	0	0	0
MANGANESE	257.60	0	0	-0.0000920	0	0
MOLYBDENUM	202.03	0	0	0	0	0
NICKEL	231.60	0	0.000100	0	0	0.0000320
PHOSPHORUS	214.90	0	0	0	0.00200	0.00120
POTASSIUM	766.40	0	0	0	0	0
SELENIUM	196.00	0	0	0	0	0
SILICON	212.40	0	0	0	0	0
SILVER	328.00	0	0	0	0	0
SODIUM	589.50	0	0	0	0	0
STRONTIUM	407.80	0.0000570	0	0	0	0
THALLIUM	190.80	0	0.00397	0.000276	0	0
TIN	189.90	0	0	0	0	0
TITANIUM	337.30	0	0	0	0	0
VANADIUM	292.40	0	0	0	0	-0.00000200
ZINC	206.20	0	0	0	0	0
ZIRCONIUM	339.20	0	0	0	0	-0.0000300

CORR_FACTORS - Modified 03/05/2008
 PDF File ID: 2241078
 Report generated: 12/01/2011 15:04



Microbac Laboratories Inc.
 INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Login Number: L11110916
 Instrument ID: ICP-THERMO2

Date: 01/25/2011
 Method: 6010B

Analyte	Wave Length	LI	MG	MN	MO	NA
ALUMINUM	308.20	0	0	0	0.0153	0
ANTIMONY	206.80	0	0	0	0.000670	0
ARSENIC	189.00	0	0	0	0.00109	0
BARIUM	455.40	0	0	0	0	0
BERYLLIUM	313.00	0	0	0	0	0
BORON	249.70	0	0	0	-0.00169	0
CADMIUM	228.80	0	0	0	0.0000220	0
CALCIUM	422.70	0	0	0	0	0
CHROMIUM	267.70	0	0	0.000160	0	0
COBALT	228.60	0	0	0	-0.000983	0
COPPER	224.70	0	0	0	0.00274	0
IRON	261.20	0	0	0	0	0
LEAD	220.30	0	0	0	-0.00183	0
LITHIUM	670.80	0	0	0	0	0
MAGNESIUM	279.10	0	0	-0.00190	-0.0110	0
MANGANESE	257.60	0	0.00000900	0	0	0
MOLYBDENUM	202.03	0	0	0	0	0
NICKEL	231.60	0	0	0	0	0
PHOSPHORUS	214.90	0	0	0	0.00800	0
POTASSIUM	766.40	0	0	0	0	0
SELENIUM	196.00	0	0	0	0.000156	0
SILICON	212.40	0	0	0	0.0187	0
SILVER	328.00	0	0	0	-0.0000440	0
SODIUM	589.50	0	0	0	0	0
STRONTIUM	407.80	0	0	0	0	0
THALLIUM	190.80	0	0	0	0	0
TIN	189.90	0	0	0	0	0
TITANIUM	337.30	0	0	0	-0.000153	0
VANADIUM	292.40	0	0	0	-0.00778	0
ZINC	206.20	0	0	0	0	0
ZIRCONIUM	339.20	0	0	0	0	0

CORR_FACTORS - Modified 03/05/2008
 PDF File ID: 2241078
 Report generated: 12/01/2011 15:04



Microbac Laboratories Inc.
 INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Login Number: L11110916
 Instrument ID: ICP-THERMO2

Date: 01/25/2011
 Method: 6010B

Analyte	Wave Length	NI	SB	SN	SR	TI
ALUMINUM	308.20	0	0	0	0	0
ANTIMONY	206.80	0	0	-0.00840	0	-0.000990
ARSENIC	189.00	0	0	0	0	0
BARIUM	455.40	0	0	0	0	0
BERYLLIUM	313.00	0	0	0	0	0
BORON	249.70	0	0	0	0	0
CADMIUM	228.80	-0.000128	0	0	0	0
CALCIUM	422.70	0	0	0	0	0
CHROMIUM	267.70	0	0	0	0	0.0000550
COBALT	228.60	0.000175	0	0	0	0.00188
COPPER	224.70	-0.0120	0	0	0	0.000269
IRON	261.20	0	0	0	0	0
LEAD	220.30	0.000110	0	0	0	0
LITHIUM	670.80	0	0	0	0	0
MAGNESIUM	279.10	0	0	0	0	-0.00290
MANGANESE	257.60	0	0	0	0	0
MOLYBDENUM	202.03	0	0	0	0	0
NICKEL	231.60	0	0	0	0	0
PHOSPHORUS	214.90	0	0	0	0	0
POTASSIUM	766.40	0	0	0	0	0
SELENIUM	196.00	0	0	0	0	0
SILICON	212.40	0	0	0	0	0
SILVER	328.00	0	0	0	0	-0.00620
SODIUM	589.50	0	0	0	0	0
STRONTIUM	407.80	0	0	0	0	0
THALLIUM	190.80	0	0	0	0	-0.00170
TIN	189.90	0	0	0	0	-0.00220
TITANIUM	337.30	0	0	0	0	0
VANADIUM	292.40	0	0	0	0	0.000824
ZINC	206.20	0	0	0	0	0
ZIRCONIUM	339.20	0	0	0	0	0

CORR_FACTORS - Modified 03/05/2008
 PDF File ID: 2241078
 Report generated: 12/01/2011 15:04



Microbac Laboratories Inc.
 INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Login Number: L11110916
 Instrument ID: ICP-THERMO2

Date: 01/25/2011
 Method: 6010B

Analyte	Wave Length	v	ZN	ZR
ALUMINUM	308.20	0.00300	0	0
ANTIMONY	206.80	-0.00438	0	0
ARSENIC	189.00	0.000107	0	0
BARIUM	455.40	0	0	0
BERYLLIUM	313.00	0	0	0
BORON	249.70	0	0	0
CADMIUM	228.80	0.0000820	0	0
CALCIUM	422.70	0	0	0
CHROMIUM	267.70	0	0	0
COBALT	228.60	0.0000200	0	0
COPPER	224.70	0	0	0
IRON	261.20	0	0	0
LEAD	220.30	-0.000126	0	0
LITHIUM	670.80	0	0	0
MAGNESIUM	279.10	0	0	0
MANGANESE	257.60	0	0	0
MOLYBDENUM	202.03	-0.000110	0	0
NICKEL	231.60	0	0	0
PHOSPHORUS	214.90	-0.00500	0	0.00200
POTASSIUM	766.40	0	0	0
SELENIUM	196.00	0	0	0
SILICON	212.40	0	0	0
SILVER	328.00	-0.00617	0	0
SODIUM	589.50	0	0	0
STRONTIUM	407.80	0	0	0
THALLIUM	190.80	-0.0282	0	0
TIN	189.90	0	0	0
TITANIUM	337.30	0	0	0
VANADIUM	292.40	0	0	0
ZINC	206.20	0	0	0
ZIRCONIUM	339.20	0	0	0

CORR_FACTORS - Modified 03/05/2008
 PDF File ID: 2241078
 Report generated: 12/01/2011 15:04



Microbac Laboratories Inc.
LINEAR RANGE (QUARTERLY)

Login Number: L11110916 Date: 09/30/2011
Instrument ID: PE-ICP2 Method: 6010B

Analyte	Integration Time (Sec.)	Concentration (mg/L)
Aluminum	10.00	450.0
Antimony	10.00	45.0
Arsenic	10.00	9.0
Barium	10.00	9.0
Beryllium	10.00	4.5
Boron	10.00	45.0
Cadmium	10.00	9.0
Calcium	10.00	450.0
Chromium	10.00	45.0
Cobalt	10.00	45.0
Copper	10.00	45.0
Iron	10.00	450.0
Lead	10.00	90.0
Lithium	10.00	0.9
Magnesium	10.00	450.0
Manganese	10.00	27.0
Molybdenum	10.00	45.0
Nickel	10.00	45.0
Potassium	10.00	72.0
Selenium	10.00	45.0
Silicon	10.00	36.0
Silver	10.00	4.5
Sodium	10.00	180.0
Strontium	10.00	4.5
Thallium	10.00	45.0
Tin	10.00	45.0
Titanium	10.00	45.0
Vanadium	10.00	45.0
Zinc	10.00	45.0

Comments:

All analytes passed acceptance criteria at the specified concentration.

LINEAR_RANGE - Modified 03/06/2008
PDF File ID: 2241329
Report generated: 12/01/2011 15:05



Microbac Laboratories Inc.
LINEAR RANGE (QUARTERLY)

Login Number: L11110916 Date: 09/29/2011
Instrument ID: ICP-THERMO2 Method: 6010B

Analyte	Integration Time (Sec.)	Concentration (mg/L)
Aluminum	10.00	810.0
Antimony	10.00	90.0
Arsenic	10.00	90.0
Barium	10.00	91.0
Beryllium	15.00	4.5
Boron	10.00	90.0
Cadmium	10.00	16.2
Calcium	10.00	900.0
Chromium	10.00	90.0
Cobalt	10.00	90.0
Copper	10.00	180.0
Iron	5.00	900.0
Lead	10.00	180.0
Lithium	10.00	90.0
Magnesium	15.00	900.0
Manganese	15.00	180.0
Molybdenum	10.00	9.0
Nickel	10.00	90.0
Phosphorus	10.00	900.0
Potassium	10.00	315.0
Selenium	10.00	90.0
Silicon	10.00	90.0
Silver	5.00	9.0
Sodium	10.00	315.0
Strontium	10.00	4.5
Thallium	10.00	9.0
Tin	10.00	90.0
Titanium	15.00	90.0
Vanadium	10.00	90.0
Zinc	10.00	45.0
Zirconium	10.00	45.0

Comments:

All analytes passed acceptance criteria at the specified concentration.

LINEAR_RANGE - Modified 03/06/2008
PDF File ID: 2241077
Report generated: 12/01/2011 15:04



2.2 General Chemistry Data

2.2.1 Percent Solids Data

2.2.1.1 Raw Data

LABORATORY REPORT

L11110916

12/12/11 13:06

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta, OH 45750
(740) 373-4071

For

Account Name: CH2MHILL, Inc
CH2MHILL
1034 S. Brentwood Blvd, Suite 2300
Richmond Heights, MO 63117
Attention: Shane Lowe

Project Number: 2736.103
Project: DOW WATERLOO Soil & GW
Site: WATERLOO
Invoice Number: 621585
P.O. Number: 416903-1

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
DE-35A-11292011	L11110916-01	D2216-90	1	30-NOV-11
DE-35B-11292011	L11110916-02	D2216-90	1	30-NOV-11
DE-35C-11292011	L11110916-03	D2216-90	1	30-NOV-11
DE-35D-11292011	L11110916-04	D2216-90	1	30-NOV-11
DE-36A-11292011	L11110916-05	D2216-90	1	30-NOV-11
DE-36B-11292011	L11110916-06	D2216-90	1	30-NOV-11
DE-36C-11292011	L11110916-07	D2216-90	1	30-NOV-11
DE-36D-11292011	L11110916-08	D2216-90	1	30-NOV-11
DE-36E-11292011	L11110916-09	D2216-90	1	30-NOV-11
DE-37A-11292011	L11110916-10	D2216-90	1	30-NOV-11
DE-37B-11292011	L11110916-11	D2216-90	1	30-NOV-11
DE-37C-11292011	L11110916-12	D2216-90	1	30-NOV-11
DE-37D-11292011	L11110916-13	D2216-90	1	30-NOV-11
DE-37E-11292011	L11110916-14	D2216-90	1	30-NOV-11
DE-37E-11292011-MS	L11110916-15	D2216-90	1	30-NOV-11
DE-37E-11292011-MSD	L11110916-16	D2216-90	1	30-NOV-11
DUP-SOIL-11292011	L11110916-17	D2216-90	1	30-NOV-11

L1_A_PROD - Modified 03/06/2008
PDF File ID: 2251080
Report generated: 12/12/2011 13:06

1 OF 1



Report Number: L11110916

Report Date : December 12, 2011

Sample Number: L11110916-01	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-35A-11292011	Prep Method: D2216-90	Prep Date: 12/01/2011 11:32
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG383410	Analyst: JDH	Run Date: 12/01/2011 11:32
Collect Date: 11/29/2011 11:10	Dilution: 1	File ID: B1.383410-0133
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	87.1		1.00	1.00



Report Number: L11110916

Report Date : December 12, 2011

Sample Number: L11110916-02
 Client ID: DE-35E-11292011
 Matrix: Soil
 Workgroup Number: WG383410
 Collect Date: 11/29/2011 11:15
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: D2216-90
 Analytical Method: D2216-90
 Analyst: JDH
 Dilution: 1
 Units: weight %

Instrument: BAL001
 Prep Date: 12/01/2011 11:32
 Cal Date:
 Run Date: 12/01/2011 11:32
 File ID: B1.383410-0134

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	86.9		1.00	1.00



Report Number: L11110916

Report Date : December 12, 2011

Sample Number: L11110916-03	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-35C-11292011	Prep Method: D2216-90	Prep Date: 12/01/2011 11:32
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG383410	Analyst: JDH	Run Date: 12/01/2011 11:32
Collect Date: 11/29/2011 11:20	Dilution: 1	File ID: B1.383410-0135
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	88.8		1.00	1.00



Report Number: L11110916

Report Date : December 12, 2011

Sample Number: L11110916-04	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-35D-11292011	Prep Method: D2216-90	Prep Date: 12/01/2011 11:32
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG383410	Analyst: JDH	Run Date: 12/01/2011 11:32
Collect Date: 11/29/2011 11:25	Dilution: 1	File ID: B1.383410-0136
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	90.8		1.00	1.00



Report Number: L11110916

Report Date : December 12, 2011

Sample Number: L11110916-05	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-36A-11292011	Prep Method: D2216-90	Prep Date: 12/01/2011 11:32
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG383410	Analyst: JDH	Run Date: 12/01/2011 11:32
Collect Date: 11/29/2011 14:00	Dilution: 1	File ID: B1.383410-0137
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	70.9		1.00	1.00



Report Number: L11110916

Report Date : December 12, 2011

Sample Number: L11110916-06
 Client ID: DE-36E-11292011
 Matrix: Soil
 Workgroup Number: WG383410
 Collect Date: 11/29/2011 14:05
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: D2216-90
 Analytical Method: D2216-90
 Analyst: JDH
 Dilution: 1
 Units: weight %

Instrument: BAL001
 Prep Date: 12/01/2011 11:32
 Cal Date:
 Run Date: 12/01/2011 11:32
 File ID: B1.383410-0138

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	87.5		1.00	1.00



Report Number: L11110916

Report Date : December 12, 2011

Sample Number: L11110916-07
 Client ID: DE-36C-11292011
 Matrix: Soil
 Workgroup Number: WG383410
 Collect Date: 11/29/2011 14:10
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: D2216-90
 Analytical Method: D2216-90
 Analyst: JDH
 Dilution: 1
 Units: weight %

Instrument: BAL001
 Prep Date: 12/01/2011 11:32
 Cal Date:
 Run Date: 12/01/2011 11:32
 File ID: B1.383410-0139

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	90.6		1.00	1.00



Report Number: L11110916

Report Date : December 12, 2011

Sample Number: L11110916-08	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-36D-11292011	Prep Method: D2216-90	Prep Date: 12/01/2011 11:32
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG383410	Analyst: JDH	Run Date: 12/01/2011 11:32
Collect Date: 11/29/2011 14:15	Dilution: 1	File ID: B1.383410-0140
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	87.4		1.00	1.00



Report Number: L11110916

Report Date : December 12, 2011

Sample Number: L11110916-09	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-36E-11292011	Prep Method: D2216-90	Prep Date: 12/01/2011 11:32
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG383410	Analyst: JDH	Run Date: 12/01/2011 11:32
Collect Date: 11/29/2011 14:20	Dilution: 1	File ID: B1.383410-0141
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	95.7		1.00	1.00



Report Number: L11110916

Report Date : December 12, 2011

Sample Number: L11110916-10	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-37A-11292011	Prep Method: D2216-90	Prep Date: 12/01/2011 11:32
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG383410	Analyst: JDH	Run Date: 12/01/2011 11:32
Collect Date: 11/29/2011 16:05	Dilution: 1	File ID: B1.383410-0142
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	70.6		1.00	1.00



Report Number: L11110916

Report Date : December 12, 2011

Sample Number: L11110916-11	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-37B-11292011	Prep Method: D2216-90	Prep Date: 12/01/2011 11:32
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG383410	Analyst: JDH	Run Date: 12/01/2011 11:32
Collect Date: 11/29/2011 16:10	Dilution: 1	File ID: B1.383410-0143
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	86.6		1.00	1.00



Report Number: L11110916

Report Date : December 12, 2011

Sample Number: L11110916-12	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-37C-11292011	Prep Method: D2216-90	Prep Date: 12/01/2011 11:32
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG383410	Analyst: JDH	Run Date: 12/01/2011 11:32
Collect Date: 11/29/2011 16:15	Dilution: 1	File ID: B1.383410-0144
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	89.3		1.00	1.00



Report Number: L11110916

Report Date : December 12, 2011

Sample Number: L11110916-13	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-37D-11292011	Prep Method: D2216-90	Prep Date: 12/01/2011 11:32
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG383410	Analyst: JDH	Run Date: 12/01/2011 11:32
Collect Date: 11/29/2011 16:20	Dilution: 1	File ID: B1.383410-0145
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	91.3		1.00	1.00



Report Number: L11110916
 Report Date : December 12, 2011

Sample Number: L11110916-14	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-37E-11292011	Prep Method: D2216-90	Prep Date: 12/01/2011 11:32
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG383410	Analyst: JDH	Run Date: 12/01/2011 11:32
Collect Date: 11/29/2011 16:25	Dilution: 1	File ID: B1.383410-0146
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	91.4		1.00	1.00



Report Number: L11110916

Report Date : December 12, 2011

Sample Number: L11110916-15	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-37E-11292011-MS	Prep Method: D2216-90	Prep Date: 12/01/2011 11:32
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG383410	Analyst: JDH	Run Date: 12/01/2011 11:32
Collect Date: 11/29/2011 16:25	Dilution: 1	File ID: B1.383410-0147
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	91.4		1.00	1.00



Report Number: L11110916

Report Date : December 12, 2011

Sample Number: L11110916-16	PrePrep Method: NONE	Instrument: BAL001
Client ID: DE-37E-11292011-MSD	Prep Method: D2216-90	Prep Date: 12/01/2011 11:32
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG383410	Analyst: JDH	Run Date: 12/01/2011 11:32
Collect Date: 11/29/2011 16:25	Dilution: 1	File ID: B1.383410-0148
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	91.4		1.00	1.00



Report Number: L11110916

Report Date : December 12, 2011

Sample Number: L11110916-17	PrePrep Method: NONE	Instrument: BAL001
Client ID: DUP-SOIL-11292011	Prep Method: D2216-90	Prep Date: 12/01/2011 11:32
Matrix: Soil	Analytical Method: D2216-90	Cal Date:
Workgroup Number: WG383410	Analyst: JDH	Run Date: 12/01/2011 11:32
Collect Date: 11/29/2011 00:01	Dilution: 1	File ID: B1.383410-0149
Sample Tag: 01	Units: weight %	

Analyte	CAS. Number	Result	Qual	RL	MDL
Percent Solids	10-02-6	89.2		1.00	1.00



Example Percent Solids Calculations

1.0 Calculating the percent solids of a sample.

$$\%Solids = \frac{WT3 - WT1}{WT2 - WT1} \times F$$

Where:

WT1 = Weight, in grams, of the empty container	1.30 g
WT2 = Weight, in grams, of the container and wet sample	21.274 g
WT3 = Weight, in grams, of the container and dried sample	5.21 g
F = Factor to get units as percent weight	100
%Solids = Percent solids present in sample.	19.58%

2.0 Calculating the percent moisture of a sample.

$$\% \text{ Moisture} = 100 - \% \text{ Solids from 1.0 calculation}$$

PERCENT SOLIDS

Workgroup (AAB#): WG383410
 Method: D2216-90
 SOP: K0003 Rev: 11

Analyst: JDH
 Instrument: BAL001

ADT(on): 11/30/2011 15:19
 ADT(off): 12/01/2011 11:32

SAMPLE NUMBER	EMPTY PAN WT 1	WET WT 2	DRY WT 3A	DRY WT 3B	DRY WT 3C	PERCENT SOLID	PERCENT MOISTURE
L11110737-01	1.35	19.48	16.46			83.34	
L11110737-02	1.34	19.39	16.56			84.32	
L11110737-03	1.32	33.22	28.66			85.71	
L11110737-04	1.32	32.87	27.95			84.41	
L11110737-05	1.35	18.83	16.02			83.92	
L11110737-06	1.32	21.53	18.18			83.42	
L11110737-07	1.33	37.3	33.34			88.99	
L11110737-08	1.33	32.42	29.25			89.80	
L11110737-09	1.34	29.35	26.05			88.22	
L11110737-10	1.35	25.29	22.78			89.52	
L11110737-11	1.33	16.76	14.99			88.53	
L11110737-12	1.32	20.76	18.51			88.43	
L11110737-13	1.32	25.63	21.52			83.09	
L11110737-14	1.32	26.46	23.85			89.62	
L11110737-15	1.32	32.87	27.95			84.41	
L11110737-16	1.32	32.87	27.95			84.41	
L11110738-01	1.31	21.7	19.98			91.56	
L11110738-02	1.32	18.61	17.3			92.42	
L11110738-03	1.32	18.61	17.3			92.42	
L11110738-04	1.32	18.61	17.3			92.42	
L11110738-05	1.32	24.07	22.04			91.08	
L11110738-06	1.33	26.55	24.27			90.96	
L11110738-07	1.33	25.44	23.07			90.17	
L11110738-08	1.32	22.24	20.69			92.59	
L11110738-09	1.34	28.12	24.83			87.71	
L11110738-10	1.33	19.86	18			89.96	
L11110738-11	1.3	14.05	12.9			90.98	
L11110738-12	1.33	22.26	20.03			89.35	
L11110738-13	1.33	25.5	22.85			89.04	
L11110738-14	1.34	26.2	22.9			86.73	
L11110764-01	1.34	23.49	23.19			98.65	
L11110764-02	1.34	25.46	25.27			99.21	
L11110916-01	1.32	17.27	15.21			87.08	
L11110916-02	1.33	15.58	13.72			86.95	
L11110916-03	1.31	26.52	23.69			88.77	
L11110916-04	1.32	26.41	24.11			90.83	
L11110916-05	1.32	19.03	13.87			70.86	
L11110916-06	1.33	30.65	26.99			87.52	
L11110916-07	1.33	33.69	30.65			90.61	
L11110916-08	1.33	22.58	19.9			87.39	
L11110916-09	1.33	22.18	21.28			95.68	
L11110916-10	1.31	20.41	14.79			70.58	

PERCENT SOLIDS - Modified 04/24/2008
 PDF ID: 2240875
 Report generated: 12/01/2011 11:36



PERCENT SOLIDS

Workgroup (AAB#): WG383410
 Method: D2216-90
 SOP: K0003 Rev: 11

Analyst: JDH
 Instrument: BAL001

ADT(on): 11/30/2011 15:19
 ADT(off): 12/01/2011 11:32

SAMPLE NUMBER	EMPTY PAN WT 1	WET WT 2	DRY WT 3A	DRY WT 3B	DRY WT 3C	PERCENT SOLID	PERCENT MOISTURE
L11110916-11	1.32	25.92	22.63			86.63	
L11110916-12	1.33	27.24	24.48			89.35	
L11110916-13	1.33	33.35	30.58			91.35	
L11110916-14	1.33	30.31	27.83			91.44	
L11110916-15	1.33	30.31	27.83			91.44	
L11110916-16	1.33	30.31	27.83			91.44	
L11110916-17	1.31	29.75	26.69			89.24	
WG383410-01	1.32	26.46	23.85			89.62	10.38
WG383410-02	1.34	26.4	22.9			86.03	13.97
WG383410-03	1.32	24.87	22.33			89.21	10.79
WG383410-04	1.32	17.48	15.42			87.25	12.75
WG383410-05	1.31	29.75	26.69			89.24	10.76
WG383410-06	1.3	25.08	22.25			88.10	11.90

Analyst: _____

Justin Hesson

3.0 Attachments

Microbac Laboratories Inc.
Ohio Valley Division Analyst List
December 12, 2011

ADC - ANTHONY D. CANTER	AJF - AMANDA J. FICKIESEN	ALB - ANNIE L. BROWN
ALV - AMY L. VALENTINE	AML - TONY M. LONG	AZH - AFTER HOURS
BLG - BRENDA L. GREENWALT	BRG - BRENDA R. GREGORY	CAA - CASSIE A. AUGENSTEIN
CAF - CHERYL A. FLOWERS	CEB - CHAD E. BARNES	CLC - CHRYS L. CRAWFORD
CLS - CARA L. STRICKLER	CLW - CHARISSA L. WINTERS	CPD - CHAD P. DAVIS
CS - CODY M. STRAHLER	CSH - CHRIS S. HILL	DDE - DEBRA D. ELLIOTT
DEV - DAVID E. VANDENBERG	DGB - DOUGLAS G. BUTCHER	DHG - DEBORAH H. GRIFFITHS
DIH - DEANNA I. HESSON	DLB - DAVID L. BUMGARNER	DLP - DOROTHY L. PAYNE
DLR - DIANNA L. RAUCH	DSM - DAVID S. MOSSOR	ECL - ERIC C. LAWSON
EDL - ERIN D. LONG	ERP - ERIN R. PORTER	FJB - FRANCES J. BOLDEN
HAV - HEMA VILASAGAR	HJR - HOLLY J. REED	JAL - JOHN A. LENT
JBK - JEREMY B. KINNEY	JDH - JUSTIN D. HESSON	JKS - JANE K. SCHAAD
JLL - JOHN L. LENT	JWR - JOHN W. RICHARDS	JWS - JACK W. SHEAVES
JYH - JI Y. HU	KEB - KATIE E. BARNES	KHR - KIM H. RHODES
KRA - KATHY R. ALBERTSON	LKN - LINDA K. NEDEFF	LSB - LESLIE S. BUCINA
MDA - MIKE D. ALBERTSON	MDC - MIKE D. COCHRAN	MES - MARY E. SCHILLING
MMB - MAREN M. BEERY	MRT - MICHELLE R. TAYLOR	MSW - MATT S. WILSON
PDM - PIERCE D. MORRIS	PWD - PAUL W. DENT	RAH - ROY A. HALSTEAD
REK - BOB E. KYER	RLB - BOB BUCHANAN	RLK - ROBIN L. KLINGER
RWC - RODNEY W. CAMPBELL	SJP - SUZANNE J. PAUGH	SLM - STEPHANIE L. MOSSBURG
SLP - SHERI L. PFALZGRAF	TIP - TAE I. PARRISH	TMB - TIFFANY M. BAILEY
TMM - TAMMY M. MORRIS	VC - VICKI COLLIER	WJB - WILL J. BEASLEY
WTD - WADE T. DELONG		

December 12, 2011

Qualkey: WATERLOO

Qualifier	Description
*	Surrogate or spike compound out of range
+	Correlation coefficient for the MSA is less than 0.995
<	Result is less than the associated numerical value.
>	Result is greater than the associated numerical value.
A	See the report narrative
B	Analyte present in method blank
B1	Target analyte detected in method blank at or above the method reporting limit
B3	Target analyte detected in calibration blank at or above the method reporting limit
B4	The BOD unseeded dilution water blank exceeded 0.2 mg/L
C	Confirmed by GC/MS
CG	Confluent growth
DL	Surrogate or spike compound was diluted out
E	Estimated concentration due to interference.
E	Semiquantitative result (out of calibration range)
EDL	Elevated sample reporting limits, presence of non-target analytes
EMPC	Estimated Maximum Possible Concentration
F, S	Estimated result below quantitation limit; method of standard additions(MSA)
FL	Free Liquid
H1	Sample analysis performed past holding time.
I	Semiquantitative result (out of instrument calibration range)
J	Estimated concentration.
J	The analyte was positively identified, but the quantitation was below the RL.
J,B	Analyte detected in both the method blank and sample above the MDL.
J,P	Estimate; columns don't agree to within 40%
J,S	Estimated concentration; analyzed by method of standard addition (MSA)
L	Sample reporting limits elevated due to matrix interference
L1	The associated blank spike (LCS) recovery was above the laboratory acceptance limits.
L2	The associated blank spike (LCS) recovery was below the laboratory acceptance limits.
M	Matrix effect; the concentration is an estimate due to matrix effect.
N	Tentatively identified compound(TIC)
NA	Not applicable
ND	Not detected at or above the reporting limit (RL).
ND, L	Not detected; sample reporting limit (RL) elevated due to interference
ND, S	Not detected; analyzed by method of standard addition (MSA)
NF	Not found by library search
NFL	No free liquid
NI	Non-ignitable
NR	Analyte is not required to be analyzed
NS	Not spiked
P	Concentrations >40% difference between the two GC columns
Q	One or more quality control criteria failed. See narrative.
QNS	Quantity of sample not sufficient to perform analysis
RA	Reanalysis confirms reported results
RE	Reanalysis confirms sample matrix interference
S	Analyzed by method of standard addition (MSA)
SMI	Sample matrix interference on surrogate
SP	Reported results are for spike compounds only
TIC	Library Search Compound
TNTC	Too numerous to count
U	Not detected at or above adjusted sample detection limit.
UJ	Undetected; the MDL and RL are estimated due to quality control discrepancies.
UJ	Undetected; the analyte was analyzed for, but not detected.
UQ	Undetected; the analyte was analyzed for, but not detected.
W	Post-digestion spike for furnace AA out of control limits
X	Exceeds regulatory limit
X, S	Exceeds regulatory limit; method of standard additions (MSA)
Z	Cannot be resolved from isomer - see below

***Special Notes for Organic Analytes



1. Acrolein and acrylonitrile by method 624 are semi-quantitative screens only.
2. 1,2-Diphenylhydrazine is unstable and is reported as azobenzene.
3. N-nitrosodiphenylamine cannot be separated from diphenylamine.
4. 3-Methylphenol and 4-Methylphenol are unresolvable compounds.
5. m-Xylene and p-Xylene are unresolvable compounds.
6. The reporting limits for Appendix II/IX compounds by method 8270 are based on EPA estimated PQLs referenced in 40 CFR Part 264, Appendix IX. They are not always achievable for every compound and are matrix dependent.



COC No. A 27975

158 Starlite Drive
Marietta, OH 45750



Phone: 740-373-4071
Fax: 740-373-4835

CHAIN-OF-CUSTODY RECORD

Company Name: **CH2M Hill**

Project Contact: **Bill Moore** Contact Phone #: **973-316-9300**

Turn Around Requirements: **24 hr** Location: **Parsippany, NJ**

Project ID: **4162-05 416902**

Sampler (print): **Gratam Sharken** Signature: *G. Sharken*

Sample I.D. No.	Comp	Grab	Date	Time	Matrix*	Hold	NUMBER OF CONTAINERS	ADDITIONAL REQUIREMENTS
DE-35A-11292011	✓		11/29/2011	1110	Soil	✓	1	
DE-35B-11292011	✓			1115		✓	1	
DE-35C-11292011	✓			1120		✓	1	
DE-35D-11292011	✓			1125		✓	1	
DE-36A-11292011	✓			1400		✓	1	
DE-36B-11292011	✓			1405		✓	1	
DE-36C-11292011	✓			1410		✓	1	
DE-36D-11292011	✓			1415		✓	1	
DE-36E-11292011	✓			1420		✓	1	
DE-37A-11292011	✓			1605		✓	1	
DE-37B-11292011	✓			1610		✓	1	
DE-37C-11292011	✓			1615		✓	1	
DE-37D-11292011	✓			1620		✓	1	
DE-37E-11292011	✓			1625		✓	1	
DE-37E-11292011-MS	✓			1625		✓	1	
DE-37E-11292011-MSD	✓			1625		✓	1	
DUP-Soil-11292011	✓					✓	1	
EB-Soil-11292011	✓			1700	WATER	✓	1	
TOTAL # (LAB USE)								

METALS (Arsenic, Cadmium, Chromium)

Program

CWA

RCRA

DOD

AFCEE

Other

Relinquished by: *G. Sharken* Date: 11/29/11 Time: 1900

Received by: *FEDEX* Time: 1900

Relinquished by: _____ Date: _____ Time: _____

Received for Laboratory by: _____ (Signature)

Microbac OVD
Received: 11/30/2011 11:14
By: CARA STRICKLER

221000020572

sd by: _____ (Signature)

Page 1 of 1

Cara Strickler

Internal Chain of Custody Report

Login: L11110916

Account: 2736

Project: 2736.103

Samples: 18

Due Date: 01-DEC-2011

Samplenum Container ID Products
 L11110916-01 916040 AS CD PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	30-NOV-2011 13:33	RLK	
2	PREP	W1	DIG	30-NOV-2011 13:42	BRG	JKT
3	ANALYZ*	DIG	METALS	30-NOV-2011 16:30	PDM	BRG
4	STORE	WET	W1	06-DEC-2011 16:32	RLK	JDH

**Sample extract/digestate/leachate*

Samplenum Container ID Products
 L11110916-02 916041 AS CD PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	30-NOV-2011 13:33	RLK	
2	PREP	W1	DIG	30-NOV-2011 13:42	BRG	JKT
3	ANALYZ*	DIG	METALS	30-NOV-2011 16:30	PDM	BRG
4	STORE	WET	W1	06-DEC-2011 16:32	RLK	JDH

**Sample extract/digestate/leachate*

Samplenum Container ID Products
 L11110916-03 916042 AS CD PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	30-NOV-2011 13:33	RLK	
2	PREP	W1	DIG	30-NOV-2011 13:42	BRG	JKT
3	ANALYZ*	DIG	METALS	30-NOV-2011 16:30	PDM	BRG
4	STORE	WET	W1	06-DEC-2011 16:32	RLK	JDH

**Sample extract/digestate/leachate*

A1 - Sample Archive (COLD)
 A2 - Sample Archive (AMBIENT)
 F1 - Volatiles Freezer in Login
 V1 - Volatiles Refrigerator in Login
 W1 - Walkin Cooler in Login



Internal Chain of Custody Report

Login: L11110916

Account: 2736

Project: 2736.103

Samples: 18

Due Date: 01-DEC-2011

Samplenum Container ID Products
L11110916-04 916043 AS CD PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	30-NOV-2011 13:33	RLK	
2	PREP	W1	DIG	30-NOV-2011 13:42	BRG	JKT
3	ANALYZ*	DIG	METALS	30-NOV-2011 16:30	PDM	BRG
4	STORE	WET	W1	06-DEC-2011 16:32	RLK	JDH

**Sample extract/digestate/leachate*

Samplenum Container ID Products
L11110916-05 916044 AS CD PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	30-NOV-2011 13:33	RLK	
2	PREP	W1	DIG	30-NOV-2011 13:42	BRG	JKT
3	ANALYZ*	DIG	METALS	30-NOV-2011 16:30	PDM	BRG
4	STORE	WET	W1	06-DEC-2011 16:32	RLK	JDH

**Sample extract/digestate/leachate*

Samplenum Container ID Products
L11110916-06 916045 AS CD PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	30-NOV-2011 13:33	RLK	
2	PREP	W1	DIG	30-NOV-2011 13:42	BRG	JKT
3	ANALYZ*	DIG	METALS	30-NOV-2011 16:30	PDM	BRG
4	STORE	WET	W1	06-DEC-2011 16:32	RLK	JDH

**Sample extract/digestate/leachate*

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login



Internal Chain of Custody Report

Login: L11110916

Account: 2736

Project: 2736.103

Samples: 18

Due Date: 01-DEC-2011

Samplenum **Container ID** **Products**
L11110916-07 **916046** **AS CD PCT-S**

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	30-NOV-2011 13:33	RLK	
2	PREP	W1	DIG	30-NOV-2011 13:42	BRG	JKT
3	ANALYZ*	DIG	METALS	30-NOV-2011 16:30	PDM	BRG
4	STORE	WET	W1	06-DEC-2011 16:32	RLK	JDH

**Sample extract/digestate/leachate*

Samplenum **Container ID** **Products**
L11110916-08 **916055** **AS CD PCT-S**

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	30-NOV-2011 13:38	RLK	
2	PREP	W1	DIG	30-NOV-2011 13:42	BRG	JKT
3	ANALYZ*	DIG	METALS	30-NOV-2011 16:30	PDM	BRG
4	STORE	WET	W1	06-DEC-2011 16:32	RLK	JDH

**Sample extract/digestate/leachate*

Samplenum **Container ID** **Products**
L11110916-09 **916047** **AS CD PCT-S**

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	30-NOV-2011 13:33	RLK	
2	PREP	W1	DIG	30-NOV-2011 13:42	BRG	JKT
3	ANALYZ*	DIG	METALS	30-NOV-2011 16:30	PDM	BRG
4	STORE	WET	W1	06-DEC-2011 16:32	RLK	JDH

**Sample extract/digestate/leachate*

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login



Internal Chain of Custody Report

Login: L11110916

Account: 2736

Project: 2736.103

Samples: 18

Due Date: 01-DEC-2011

Samplenum **Container ID** **Products**
L11110916-10 916056 AS CD PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	30-NOV-2011 13:38	RLK	
2	PREP	W1	DIG	30-NOV-2011 13:43	BRG	JKT
3	ANALYZ*	DIG	METALS	30-NOV-2011 16:30	PDM	BRG
4	STORE	WET	W1	06-DEC-2011 16:32	RLK	JDH

**Sample extract/digestate/leachate*

Samplenum **Container ID** **Products**
L11110916-11 916048 AS CD PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	WET	30-NOV-2011 13:33	RLK	
2	STORE	WET	W1	06-DEC-2011 16:32	RLK	JDH

Samplenum **Container ID** **Products**
L11110916-12 916049 AS CD PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	30-NOV-2011 13:33	RLK	
2	PREP	W1	DIG	30-NOV-2011 13:43	BRG	JKT
3	ANALYZ*	DIG	METALS	30-NOV-2011 16:30	PDM	BRG
4	STORE	WET	W1	06-DEC-2011 16:32	RLK	JDH

**Sample extract/digestate/leachate*

Samplenum **Container ID** **Products**
L11110916-13 916050 AS CD PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	30-NOV-2011 13:33	RLK	

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login



Microbac Laboratories Inc.
Internal Chain of Custody Report

Login: L11110916
Account: 2736
Project: 2736.103
Samples: 18
Due Date: 01-DEC-2011

Samplenum **Container ID** **Products**
L11110916-14 916051 AS CD PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	30-NOV-2011 13:33	RLK	
2	PREP	W1	DIG	30-NOV-2011 13:43	BRG	JKT
3	ANALYZ*	DIG	METALS	30-NOV-2011 16:30	PDM	BRG
4	STORE	WET	W1	06-DEC-2011 16:32	RLK	JDH

**Sample extract/digestate/leachate*

Samplenum **Container ID** **Products**
L11110916-15 916052 AS CD PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	WET	30-NOV-2011 13:33	RLK	
2	STORE	WET	W1	06-DEC-2011 16:32	RLK	JDH

Samplenum **Container ID** **Products**
L11110916-16 916053 AS CD PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	30-NOV-2011 13:33	RLK	
2	PREP	W1	DIG	30-NOV-2011 13:43	BRG	JKT
3	ANALYZ*	DIG	METALS	30-NOV-2011 16:30	PDM	BRG
4	STORE	WET	W1	06-DEC-2011 16:32	RLK	JDH

**Sample extract/digestate/leachate*

Samplenum **Container ID** **Products**
L11110916-17 916054 AS CD PCT-S

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	30-NOV-2011 13:33	RLK	
2	PREP	W1	DIG	30-NOV-2011 13:43	BRG	JKT
3	ANALYZ*	DIG	METALS	30-NOV-2011 16:30	PDM	BRG
4	STORE	WET	W1	06-DEC-2011 16:32	RLK	JDH

**Sample extract/digestate/leachate*

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login



Internal Chain of Custody Report

Login: L11110916

Account: 2736

Project: 2736.103

Samples: 18

Due Date: 01-DEC-2011

Samplenum Container ID Products
L11110916-18 915990

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	30-NOV-2011 13:16	RLK	
2	PREP	W1	DIG	30-NOV-2011 13:43	BRG	JKT
3	STORE	DIG	A2	02-DEC-2011 14:03	JKT	ERP

Comments:Products cancelled.

- A1 - Sample Archive (COLD)
- A2 - Sample Archive (AMBIENT)
- F1 - Volatiles Freezer in Login
- V1 - Volatiles Refrigerator in Login
- W1 - Walkin Cooler in Login



NELAP Addendum - March 4, 2011

Non-NELAP LIMS Product and Description

The following is a list of those tests that are not included in the Microbac – OVL NELAP Scope of Accreditation:

Heat of Combustion (BTU)
Total Halide by Bomb Combustion (TX)
Particle Sizing - 200 Mesh (PS200)
Sulfate (SO₄) - 9038
Specific Gravity/Density (SPGRAV)
Total Residual Chlorine (CL-TRL)
Total Volatile Solids (all forms) (TVS)
Total Coliform Bacteria (all methods)
Fecal Coliform Bacteria (all methods)
Sulfite (SO₃)
Thiodiglycol (TDG-LCMS)

NELAP Accreditation by Laboratory SOP

NONPOTABLE WATER

OVL HPLC02/HPLC-UV

Nitroglycerin
Nitroguanidine
Acetic acid
Butyric acid
Lactic acid
Propionic acid
Pyruvic acid

OVL KNITRO-C-WUV-VIS

Nitrocellulose

OVL MSS01/GC-MS

1,4-Phenylenediamine
1-Methylnaphthalene
1,4-Dioxane
Atrazine
Benzaldehyde
Biphenyl
Caprolactam
Hexamethylphosphoramide (HMPA)
Pentachlorobenzene
Pentachloroethane

NELAP Accreditation by Laboratory SOP

NONPOTABLE WATER

OVL MSV01/GC-MS

1, 1, 2-Trichloro-1,2,2-trifluoroethane
1,3-Butadiene
Cyclohexane
Cyclohexanone
Dimethyl disulfide
Dimethylsulfide
Ethyl-t-butylether (ETBE)
Isoprene
Methylacetate
Methylcyclohexane
T-amylmethylether (TAME)
Tetrahydrofuran (THF)

OVL RSK01/GC-FID

Isobutane
n-Butane
Propane
Propylene
Propyne

OVL HPLC07/HPLC-MS-MS

Hexamethylphosphoramide (XMPA-LCMS)

SOLID AND HAZARDOUS CHEMICALS

OVL HPLCOS-HPLC-UV

Nitroguanidine

OVL KNITRO-C-S/UV-VIS

Nitrocellulose

OVL MSS01/GC-MS

1-Methylnaphthalene
Benzaldehyde
Biphenyl
Caprolactam
Pentachloroethane

NELAP Accreditation by Laboratory SOP

SOLID AND HAZARDOUS CHEMICALS

OVL MSV01/GC-MS

1.3-Butadiene
Cyclohexane
Cyclohexanone
Dimethyl disulfide
Dimethylsulfide
Ethyl-t-butylether (ETBE)
Isoprene
Methylacetate
Methylcyclohexane
n-Hexane
T-amylmethylether (TAME)

Attachment C
Data Quality Evaluation Report

Data Quality Evaluation for RCRA AOC C (Gorham Street) Investigation, Dow Waterloo

PREPARED BY: CH2M HILL

DATE: January 2012

Introduction

The objective of this data quality evaluation (DQE) report is to assess the data quality of analytical results for soil samples collected from the Union Carbide Corporation (UCC) Dow Waterloo site in Waterloo, New York (UCC is a wholly owned subsidiary of The Dow Chemical Company). CH2M HILL collected samples July 25 through November 29, 2011. Guidance for this DQE report came from the *Quality Assurance Project Plan, RCRA Facility Investigation, Former Hampshire Chemical Corporation Facility, Waterloo, New York (Waterloo QAPP, June 2010)*; the *USEPA Contract Laboratory NFG for Inorganic Data Review, October 2004*; individual method requirements; and, historical laboratory quality control limits.

This report is intended as a general data quality assessment designed to summarize data issues.

Analytical Data

This DQE report covers 126 soil samples, 12 field duplicates (FD) and one equipment blank (EB). The samples were reported in four sample delivery groups: L11080332, L11100434, L11100534 and L11110916. Samples were collected and delivered to Microbac Laboratory (MBLM) in Marietta, Ohio. The samples were analyzed by the method listed in Table 1.

TABLE 1
Analytical Parameters
RCRA AOC C (Gorham Street) 2011 Investigation, Dow Waterloo

Parameter	Method	Laboratory
Metals (total)	SW6010B	MBLM

The sample delivery groups were assessed by reviewing the following: (1) the chain-of-custody documentation; (2) holding-time compliance; (3) initial and continuing calibration criteria; (4) method blanks and field blanks; (5) laboratory control sample/laboratory control sample duplicate (LCS/LCSD) recoveries; (6) matrix spike/matrix spike duplicate (MS/MSD) recoveries; (7) FD precision; and (8) the required quality control (QC) samples at the specified frequencies.

Data flags were assigned according to the Waterloo QAPP. Multiple flags are routinely applied to specific sample method/matrix/analyte combinations, but there will only be one

final flag. A final flag is applied to the data and is the most conservative of the applied validation flags. The final flag also includes matrix and blank sample impacts.

The data flags are those listed in the Waterloo QAPP and are defined below:

- J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- R = The sample result was rejected due to serious deficiencies in the ability to analyze the sample and meet the QC criteria. The presence or absence of the analyte could not be verified.
- U = The analyte was analyzed for but was not detected above the reported sample quantitation limit.
- UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

Findings

The overall summaries of the data validation are contained in the following sections. Qualified data are presented in Table 2.

Holding Time and Preservation

All acceptance criteria were met.

Calibration

Initial and continuing calibration analyses were performed as required by the methods. All acceptance criteria were met.

Method Blanks

Method blanks were analyzed at the required frequency and were free of contamination.

Field Blanks

An EB was collected, analyzed and was free of contamination.

Laboratory Control Samples

LCS/LCSDs were analyzed as required all accuracy and precision criteria were met.

Matrix Spike

MS/MSDs were analyzed as required and all accuracy and precision criteria were met with the following exceptions:

Arsenic and/or cadmium were recovered less than the lower control limits in multiple MS/MSDs, indicating a possible low bias. The data were qualified as estimated and flagged "J" in the respective parent samples. In addition, arsenic was recovered greater than the

upper control limits in the MSD for sample DE-29E-10112011, indicating a high bias. The result was not qualified because the parent sample did not contain reportable levels of arsenic.

The relative percent difference (RPD) for cadmium exceeded criteria MS/MSD for sample DE-31G-10102011. The result was qualified as estimated and flagged "J" in the sample.

Post Digestion Spikes

Post digestion spikes were analyzed as required and all accuracy criteria were met.

Serial Dilutions

Serial dilutions were analyzed according to methods requiring their use and all acceptance criteria were met with the following exception:

The RPD for cadmium exceeded criteria in the serial dilution for sample DE-19A-07252011. The result was qualified as estimated and flagged "J" in the sample.

Field Duplicates

FDs were collected and analyzed as required and all precision criteria were met with the following exceptions:

The RPD for arsenic exceeded criteria in FD pair DE-19D-07252011 / DE-19D-07252011-DUP. The data were qualified as estimated and flagged "J" in the FD pair.

The RPD for cadmium exceeded method criteria in FD pair DE-23E-07262011 / DE-23E-07262011-DUP. The data were qualified as estimated and flagged "J" in the FD pair.

The RPDs for arsenic and cadmium exceeded criteria in FD pair DE-29C-10112011/ DUP-SOIL-10112011-01. The data were qualified as estimated and flagged "J" in the FD pair.

Interference Check Standards

Interference check standards were analyzed as required and all accuracy criteria were met.

Chain of Custody

Required procedures were followed and were free of errors.

Overall Assessment

The goal of this assessment is to demonstrate that a sufficient number of representative samples were collected and the resulting analytical data can be used to support the decision making process. The following summary highlights the PARCC findings for the above-defined events:

Precision of the data was verified through the review of the field and laboratory data quality indicators that include FD, LCS/LCSD, MS/MSD, and serial dilution RPDs. Precision met the QAPP requirements with the exception of a few instances where arsenic and cadmium were qualified as estimated due to FD RPD, MS/MSD and/or serial dilution RPD issues. Data users should consider the impact to any result that is qualified as estimated as it may contain a bias which could affect the decision making process.

Accuracy of the data was verified through the review of the calibration data, LCS/LCSD, MS/MSD, post digestion spike, and interference check standard recoveries, as well as the evaluation of method/field/calibration blank data. Accuracy was generally acceptable with a few instances where arsenic and cadmium were qualified as estimated due to MS/MSD issues. No data was qualified due to blank contamination.

Representativeness of the data was verified through the sample's collection, storage and preservation procedures and the verification of holding-time compliance. The laboratory did not note any discrepancies with sample collection, storage or preservation procedures. All data were reported from analyses within the USEPA-recommended holding time.

Comparability of the data was ensured through the use of standard USEPA analytical procedures and standard units for reporting. Results obtained are comparable to industry standards in that the collection and analytical techniques followed approved, documented procedures.

Completeness is a measure of the number of valid measurements obtained in relation to the total number of measurements planned. Completeness is expressed as the percentage of valid or usable measurements compared to planned measurements. Valid data are defined as all data that are not rejected for project use. All data were considered valid. The completeness goal of 95 percent was met for all analyte/method combinations.

Table 2
Qualified Data
RCRA AOC C (Gorham Street) Investigation, Dow Waterloo

Sample ID	Method	Analyte	Units	Final Result	Final Flag	Reason
DE-13E-07262011	SW6010B	Arsenic	mg/kg	4.4	J	MS<LCL, SD<LCL
DE-19A-07252011	SW6010B	Cadmium	mg/kg	16.6	J	SDIL
DE-19D-07252011	SW6010B	Arsenic	mg/kg	77.4	J	FD>RPD
DE-19D-07252011-DUP	SW6010B	Arsenic	mg/kg	40.1	J	FD>RPD
DE-19E-07252011	SW6010B	Arsenic	mg/kg	4.65	J	MS<LCL
DE-21E-07262011	SW6010B	Arsenic	mg/kg	12.8	J	MS<LCL, SD<LCL
DE-21E-07262011	SW6010B	Cadmium	mg/kg	8.67	J	SD<LCL
DE-23E-07262011	SW6010B	Cadmium	mg/kg	6.04	J	FD>RPD
DE-23E-07262011-DUP	SW6010B	Cadmium	mg/kg	2.96	J	FD>RPD
DE-29C-10112011	SW6010B	Arsenic	mg/kg	34.8	J	FD>RPD
DE-29C-10112011	SW6010B	Cadmium	mg/kg	4.35	J	FD>RPD
DE-31G-10102011	SW6010B	Cadmium	mg/kg	22.8	J	MS<LCL, SD<LCL, MSRPD
DE-32D-10102011	SW6010B	Arsenic	mg/kg	11.7	J	SD<LCL
DE-32D-10102011	SW6010B	Cadmium	mg/kg	1.33	J	SD<LCL
DE-37E-11292011	SW6010B	Arsenic	mg/kg	3.68	J	MS<LCL
DUP-SOIL-10112011-01	SW6010B	Arsenic	mg/kg	2.87	J	FD>RPD
DUP-SOIL-10112011-01	SW6010B	Cadmium	mg/kg	0.961	J	FD>RPD

Validation Reasons:

- FD>RPD The relative percent difference exceeded control limits in the FD pair.
- MS<LCL Matrix spike recovered less than the lower control limit.
- MSRPD The relative percent difference exceeded control limits in the MS/MSD.
- SD<LCL Matrix spike duplicate recovered less than the lower control limit.
- SDIL The relative percent difference exceeded control limits in the serial dilution.