11190 Sunrise Valley Drive
Suite 300
Reston, VA 20191
Main: 703 709 6500
www.wspgroup.com/usa

VIA ELECTRONIC MAIL

October 15, 2014

Ms. Karen Cahill
New York State Department of Environmental Conservation
Region 7
615 Erie Blvd. West
Syracuse, NY 13204

Re: Summary of Residuals Sampling in Select Manholes
Emerson Power Transmission Ithaca, New York

Dear Karen:

On behalf of Emerson, WSP has prepared a summary of the investigation activities conducted to evaluate residual material in the manholes associated with the sanitary sewers located in Buildings 4, 8, 9, 13A, 14, 15, and 35 at the Emerson Power Transmission site in Ithaca, New York. The investigation focused on evaluating the manholes and manways associated with the sanitary sewers in these buildings. Following is a description of the investigation including sampling procedures, sample analysis, and sample results.

Scope of Work

During the week of August 25, 2014, WSP reviewed sewer diagrams for the site and identified 17 possible manholes (circular) and manways (rectangular) associated with the sanitary sewers located in Buildings 4, 8, 9, 13A, 14, 15, and 35 (Figure 1). An inspection was then conducted to verify whether the manhole was present and its actual location in each building. Results of the inspection determined that one manhole (MH-B1) was not present. WSP then attempted to remove the covers over the manholes/manways while the surrounding area was monitored with a multi-gas monitor and a photoionization detector (PID). The covers for two manholes (MH-A5 and MH-C2) were sealed in-place and could not be removed. Inspections were then conducted of the 14 manholes/manways that could be accessed. The total depth and width of the manholes and manways, and thickness of residual material, were measured and recorded in a field logbook. A visual inspection was conducted to ascertain if the residual material extended into the sewer pipe exiting the manhole. Of the 14 manholes/manways that were inspected, residual material was present in only 11. Figure 1 shows the location of the manholes and manways, and Table 1 lists the findings of the inspections.

Sampling Procedures

Samples were collected from the 11 manholes and manways containing residual materials. Samples were collected with either a spoon sampler or a swing sampler, homogenized in a sample tray, and placed in new 4-ounce glass jars. The jars were placed in a cooler, packed with ice to cool the samples to approximately 4 degrees Celsius, and shipped to the laboratory for analysis. A chain of custody was completed with all sample names, date, time of collection, and analysis required. The chain of custody form accompanied the sample bottles to the laboratory. Custody seals were placed on the outside of the cooler to ensure the cooler could not be opened without breaking the seal.

Sample Analysis

The samples were analyzed by Accutest Laboratories in Burlington, Vermont, for toxicity characteristic leaching procedure (TCLP) metals using Environmental Protection Agency method SW846 6010C. Corrosivity, cyanide reactivity, and sulfide reactivity were analyzed using method SW846 CHAP7, and ignitability (flashpoint) was analyzed using method SW846 1020 and percent solids was analyzed using method SM21 2540 B MOD.

Results

The sampling results are provided in Table 2, and the laboratory data package is provided in Enclosure A. Only two samples contained a constituent above a TCLP threshold. Barium was detected above the TCLP limit of 100 mg/l in MH-A20 at 112 mg/l. Cadmium was detected at 2.8 mg/l in the sample from MH-D1 which is above the TCLP limit of 1 mg/l (Table 2). No other metals were detected at concentrations exceeding the TCLP limits, and none of the samples exhibited the characteristic of corrosivity, ignitabiliy, or reactivity to cyanide or sulfide.

Please let us know if you have any questions. We can be reached at (703) 709-6500.

Sincerely yours,

James P. Bulman
Executive Vice President

Lisa K. Bryda, P.G.
General Manager

TB:lkb:jpb:rlo
k:\emerson\ithaca\real estate\labella due diligence\sewers\letter.hw755010.2014-10-15.docx

Enclosure

cc/encl: Derek Chase, Emerson
Stephen L. Clarke, Emerson
Steve Karpinski, NYDOH

Figure

THE ORIGINAL VERSION OF THIS DRAWING IS IN COLOR. BLACK AND WHITE COPIES MAY NOT ACCURATELY DEPICT CERTAIN INFORMATION.

LEGEND

34	BUILDING NUMBER
MH–A20	INDICATES WSP SAMPLE LOCATION AND DESIGNATION
○	MANHOLE
▭	MANWAY
◁------	SEWER LINE

MH–A1
MH–A20
MH–A3
MH–A2
13A
14
15
35
MH–A4
MH–A5
9
MH–B1
MH–C3
MH–C2
MH–C1
8
MH–A6
MH–C4
MH–D1
MH–C5
MH–B2
MH–D2
3
4
5
MH–B3

0 30 60
SCALE IN FEET

B REFERENCE:
SANITARY SEWER DIGITIZED FROM MORSE CHAIN CO. DRAWING, TITLED SANITARY SEWER LINES–1962, DRAWING NO. B118567–A, DATED 5–8–62.

R:\ACAD\CADD\00004255-IthacaCAD\00004255-039.dwg 10/9/2014 10:32 AM USEC01012

Drawn By: EGC
Checked:
Approved: [signature] 9/26/2014
DWG Name: 00004255–039

EMERSON POWER TRANSMISSION
ITHACA, NEW YORK
PREPARED FOR
EMERSON POWER TRANSMISSION

Figure 1

SEWER MANHOLE SAMPLING LOCATIONS

WSP USA Corp.
11190 Sunrise Valley Drive, Suite 300
Reston, Virginia 20191
(703) 709-6500
www.wspgroup.com/usa

Tables

Table 1

Sewer Manhole Evaluation
Emerson Power Transmission Facility
Ithaca, New York (a)

Manhole	Depth (feet)	Dimensions/ Diameter (feet)	Type (b)	Thickness of Residual Material (inches)	Notes
MH-A1	1.05	1.8 x 1.3	manway	4	No pipes leading into it; some water
MH-A2	1.5	2.1	manhole	3	Three pipes feeding into it, all appearing to contain residuals; some water present
MH-A3	2.2	2	manhole	2	No pipes feeding into it; significant standing water; residuals around perimeter of vault (about 6 inches thick); standing water in center; fine black material at bottom of water
MH-A4	3	2	manhole	2	One 2-inch diameter pipe feeding into it (containing no residuals); some water present with residuals
MH-A5	-	-	manhole	-	Sealed with caulk; could not open
MH-A6	4.2	5.2 x 2.3	manway	2	Three submerged pipes feeding into it; 2 feet of water present; no residuals
MH-A20	1.35	1.25 x 1.75	manway	1.5	One 4-inch diameter pipe feeding into it; some water present at base with rust colored sludge. Appears to be a cleanout.
MH-B1	-	-	-	-	No manhole remains; jersey barriers nearby
MH-B2	4.55	3.75 x 3.15	manway	3	Two 10-inch lines feeding into it, one with minor trickle of water; some water at base. Sludge-like residuals at based (2-3 inches).
MH-B3	8	2.1	manhole	12	Brick foundation around edges for 4 feet, then void below; construction debris (bricks) at base along with water and residuals; no pipes present
MH-C1	3.45	2.4	manhole	None	Three pipes feeding into it; no residuals or flow, dry
MH-C2	-	-	manhole	-	Sealed with caulk; could not open
MH-C3	1.7	1.5 x 1.25	manway	4	Two 4-inch diameter pipes feeding into it; organic debris and metal scrap at base underlain by 3-4 inches of damp sediment-like residuals. no standing water; some sediment-like residual in one of the pipes. Appears to be a cleanout
MH-C4	4	4.1 x 4	manway	3	One 12-inch closed pipe running through with an 8-inch elbow pipe connected to it; below that is an 8-inch pipe, with a break in it; two 4-inch diameter pipes also feed into vault, but they are broken off; residuals consisted mainly of fine sand and fine gravel. Minor amount of pooled water at base.
MH-C5	-	-	manway	-	Not a sewer connection - opens to tunnel below
MH-D1	1.3	1.8 x 2.8	manway	4.5	Two 8-inch diameter abandoned pipes present, both contain residuals; debris at base consisting of rusted metal scraps possibly from pipes; dry Appears to be a cleanout.
MH-D2	0.95	2.3 x 2.34	manway	2	Two 8-inch diameter pipes and one 2-inch diameter pipes with minor water; mostly rusted scrap debris with some sediment-like residuals. Appears to be a cleanout.

a\ "-" indicates not available or not applicable.
b\ Manway - rectangular; Manhole - circular
c\ residuals - sludge like material containing various amounts of water

Table 2

Sewer Residual Sample Results
August 2014
Emerson Power Transmission Facility
Ithaca, New York (a)

Parameters	Sample Location: / Sample Date:	TCLP / Hazardous Waste Criteria (b)	MH-A1 08/28/14	MH-A2 08/28/14	MH-A3 08/28/14	MH-A4 08/28/14	MH-A20 08/28/14	MH-B2 08/28/14	MH-B3 08/28/14	MH-C3 08/28/14	MH-C4 08/28/14	MH-D1 08/28/14	MH-D2 08/28/14
TCLP Metals (mg/l)													
Arsenic		5.0	0.0024 U (c)	0.0024 U	0.0024 U	0.004 J	0.0024 U	0.0024 U	0.0024 U	0.0024 U	0.0024 U	0.0024 U	0.0024 U
Barium		100	1.4	40.6	17.4	19.5	**112**	1.5	0.25 J	3.8	3.6	0.47 J	2.2
Cadmium		1.0	0.011	0.0024 J	0.0018 J	0.0023 J	0.0089	0.044	0.0052	0.025	0.018	**2.8**	0.038
Chromium		5.0	0.083	0.0022 J	0.002 J	0.0061 J	0.0018 J	0.0066 J	0.0047 J	0.0047 J	0.0015 J	0.0092 J	0.0014 J
Lead		5.0	0.003 J	0.0033 J	0.0019 U	0.0019 U	0.0019 U	0.0039 J	0.0019 U	0.029	0.0019 U	0.0039 U	0.0019 U
Mercury		0.2	0.0001 UJ	0.0001 UJ	0.0001 U	0.0001 UJ	0.0001 UJ	0.0001 U	0.0001 UJ	0.0001 U	0.0001 U	0.0001 U	0.0001 UJ
Selenium		1.0	0.0069 J	0.0062 J	0.0062 J	0.0069 J	0.0066 J	0.0062 J	0.0083 J	0.0086 J	0.0087 J	0.0092 J	0.0072 J
Silver		5.0	0.00096 U	0.0013 J	0.00096 U	0.00096 U	0.001 J	0.00096 U	0.0011 J	0.00096 U	0.0014 J	0.0014 J	0.0016 J
General Chemistry													
Corrosivity as pH (s.u.)		<2 or >12.5	6.9	7.6	7.8	7.8	8.3	7.5	7.5	7.6	8.0	7.8	7.9
Ignitability/Flashpoint (^{o}F)		<140	>230	>230	>230	>230	>230	>230	>230	>230	>230	>230	>230
Cyanide Reactivity (mg/kg)		-	<1.9	<2.8	<2.6	<3.2	<2.6	<2.1	<2.6	<1.7	<2.7	<2.4	<2.5
Sulfide Reactivity (mg/kg)		-	<62	<94	<85	<110	<85	<71	<86	<56	<90	<82	<82
Solids (percent)		-	80.2	52.9	56.9	47.1	58.5	68.6	57.9	89.7	55.7	61.3	60.9

Shaded, bold, boxed values indicate exceedence of the criterion

a\ TCLP = toxicity characteristic leaching procedure; mg/l = milligrams per liter; s.u. = standard unit; ^{o}F = degrees Farenheit; mg/kg = milligrams per kilogram; "-" indicates not applicable.

b\ Source: 40 Code of Federal Regulations Part 261.

c\ Data Qualifiers:

U = constituent not detected at the noted reporting limit

J = estimated concentration between the reporting limit and method detection limit

Enclosure A

New England ACCUTEST LABORATORIES

09/05/14

Technical Report for

WSP Environmental & Energy

Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

4255-06

Accutest Job Number: MC33244

Sampling Date: 08/28/14

Report to:

WSP Environmental & Energy
11190 Sunrise Valley Dr
Reston, VA 20191
Lisa.bryda@wspgroup.com

ATTN: Lisa Bryda

Total number of pages in report: **144**

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Reza Tand
Lab Director

Client Service contact: Frank DAgostino 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

Test results relate only to samples analyzed.

Sections: 1 2 3 4 5 6 7 8 9 10

Table of Contents

Sample Summary

WSP Environmental & Energy

Job No: MC33244

Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY
Project No: 4255-06

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
MC33244-1	08/28/14	11:20	DL	08/29/14	SO	Soil	MH-C3
MC33244-2	08/28/14	11:30	DL	08/29/14	SO	Soil	MH-A1
MC33244-3	08/28/14	11:35	DL	08/29/14	SO	Soil	MH-A2
MC33244-4	08/28/14	11:40	DL	08/29/14	SO	Soil	MH-A20
MC33244-5	08/28/14	11:50	DL	08/29/14	SO	Soil	MH-A4
MC33244-6	08/28/14	12:00	DL	08/29/14	SO	Soil	MH-A3
MC33244-7	08/28/14	12:35	DL	08/29/14	SO	Soil	MH-C4
MC33244-8	08/28/14	12:45	DL	08/29/14	SO	Soil	MH-B2
MC33244-9	08/28/14	12:50	DL	08/29/14	SO	Soil	MH-D1
MC33244-10	08/28/14	13:10	DL	08/29/14	SO	Soil	MH-D2
MC33244-11	08/28/14	13:20	DL	08/29/14	SO	Soil	MH-B3

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: WSP Environmental & Energy **Job No** MC33244

Site: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, **Report Date** 9/5/2014 10:51:14 AM

11 Sample(s) were collected on 08/28/2014 and were received at Accutest on 08/29/2014 properly preserved, at 0.8 Deg. C and intact. These Samples received an Accutest job number of MC33244. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Metals By Method SW846 6010C

Matrix LEACHATE **Batch ID:** MP23556

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JB75106-1ALS, MC33270-1AMS, MC33270-1AMSD, MC33270-1ASDL were used as the QC samples for metals.
- RPD(s) for Serial Dilution for Arsenic, Cadmium, Lead, Selenium, Silver are outside control limits for sample MP23556-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

Metals By Method SW846 7470A

Matrix LEACHATE **Batch ID:** MP23558

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JB75106-1ALS, MC33191-1ALS, MC33270-1AMS, MC33270-1AMSD were used as the QC samples for metals.

Wet Chemistry By Method SM21 2540 B MOD.

Matrix SO **Batch ID:** GN48139

- Sample(s) MC33240-1DUP were used as the QC samples for Solids, Percent.

Wet Chemistry By Method SW846 1020

Matrix SO **Batch ID:** GN48058

- Sample(s) MC32226-1RDUP were used as the QC samples for Ignitability (Flashpoint).

Matrix SO **Batch ID:** GN48156

- Sample(s) MC33244-11DUP were used as the QC samples for Ignitability (Flashpoint).

Wet Chemistry By Method SW846 CHAP7

Matrix	SO	Batch ID:	GN48144

- Sample(s) MC33244-1DUP were used as the QC samples for Corrosivity as pH.

Matrix	SO	Batch ID:	GP18082

- All samples were distilled within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC33244-1DUP, MC33244-1MS were used as the QC samples for Cyanide Reactivity.

Matrix	SO	Batch ID:	GP18083

- All samples were distilled within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC33244-1DUP, MC33244-1MS were used as the QC samples for Sulfide Reactivity.

The Accutest Laboratories of New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety.The Accutest Laboratories of NE, Laboratory Director or assignee as verified by the signature on the cover page has authorized the release of this report(MC33244).

Summary of Hits

Job Number: MC33244
Account: WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY
Collected: 08/28/14

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
MC33244-1	**MH-C3**					
Corrosivity as pH		7.6				SW846 CHAP7
Ignitability (Flashpoint)		> 230			Deg. F	SW846 1020
Barium		3.8	0.50	0.0020	mg/l	SW846 6010C
Cadmium		0.025	0.0040	0.00024	mg/l	SW846 6010C
Chromium		0.0047 B	0.010	0.00073	mg/l	SW846 6010C
Lead		0.029	0.010	0.0019	mg/l	SW846 6010C
Selenium		0.0086 B	0.025	0.0027	mg/l	SW846 6010C
MC33244-2	**MH-A1**					
Corrosivity as pH		6.9				SW846 CHAP7
Ignitability (Flashpoint)		> 230			Deg. F	SW846 1020
Barium		1.4	0.50	0.0020	mg/l	SW846 6010C
Cadmium		0.011	0.0040	0.00024	mg/l	SW846 6010C
Chromium		0.083	0.010	0.00073	mg/l	SW846 6010C
Lead		0.0030 B	0.010	0.0019	mg/l	SW846 6010C
Selenium		0.0069 B	0.025	0.0027	mg/l	SW846 6010C
MC33244-3	**MH-A2**					
Corrosivity as pH		7.6				SW846 CHAP7
Ignitability (Flashpoint)		> 230			Deg. F	SW846 1020
Barium		40.6	5.0	0.020	mg/l	SW846 6010C
Cadmium		0.0024 B	0.0040	0.00024	mg/l	SW846 6010C
Chromium		0.0022 B	0.010	0.00073	mg/l	SW846 6010C
Lead		0.0033 B	0.010	0.0019	mg/l	SW846 6010C
Selenium		0.0062 B	0.025	0.0027	mg/l	SW846 6010C
Silver		0.0013 B	0.0050	0.00096	mg/l	SW846 6010C
MC33244-4	**MH-A20**					
Corrosivity as pH		8.3				SW846 CHAP7
Ignitability (Flashpoint)		> 230			Deg. F	SW846 1020
Barium		112	10	0.040	mg/l	SW846 6010C
Cadmium		0.0089	0.0040	0.00024	mg/l	SW846 6010C
Chromium		0.0018 B	0.010	0.00073	mg/l	SW846 6010C
Selenium		0.0066 B	0.025	0.0027	mg/l	SW846 6010C
Silver		0.0010 B	0.0050	0.00096	mg/l	SW846 6010C
MC33244-5	**MH-A4**					
Corrosivity as pH		7.8				SW846 CHAP7
Ignitability (Flashpoint)		> 230			Deg. F	SW846 1020

Summary of Hits

Job Number: MC33244
Account: WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY
Collected: 08/28/14

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Arsenic		0.0040 B	0.010	0.0024	mg/l	SW846 6010C
Barium		19.5	5.0	0.020	mg/l	SW846 6010C
Cadmium		0.0023 B	0.0040	0.00024	mg/l	SW846 6010C
Chromium		0.0061 B	0.010	0.00073	mg/l	SW846 6010C
Selenium		0.0069 B	0.025	0.0027	mg/l	SW846 6010C
MC33244-6	**MH-A3**					
Corrosivity as pH		7.8				SW846 CHAP7
Ignitability (Flashpoint)		> 230			Deg. F	SW846 1020
Barium		17.4	5.0	0.020	mg/l	SW846 6010C
Cadmium		0.0018 B	0.0040	0.00024	mg/l	SW846 6010C
Chromium		0.0020 B	0.010	0.00073	mg/l	SW846 6010C
Selenium		0.0062 B	0.025	0.0027	mg/l	SW846 6010C
MC33244-7	**MH-C4**					
Corrosivity as pH		8.0				SW846 CHAP7
Ignitability (Flashpoint)		> 230			Deg. F	SW846 1020
Barium		3.6	0.50	0.0020	mg/l	SW846 6010C
Cadmium		0.018	0.0040	0.00024	mg/l	SW846 6010C
Chromium		0.0015 B	0.010	0.00073	mg/l	SW846 6010C
Selenium		0.0087 B	0.025	0.0027	mg/l	SW846 6010C
Silver		0.0014 B	0.0050	0.00096	mg/l	SW846 6010C
MC33244-8	**MH-B2**					
Corrosivity as pH		7.5				SW846 CHAP7
Ignitability (Flashpoint)		> 230			Deg. F	SW846 1020
Barium		1.5	0.50	0.0020	mg/l	SW846 6010C
Cadmium		0.044	0.0040	0.00024	mg/l	SW846 6010C
Chromium		0.0066 B	0.010	0.00073	mg/l	SW846 6010C
Lead		0.0039 B	0.010	0.0019	mg/l	SW846 6010C
Selenium		0.0062 B	0.025	0.0027	mg/l	SW846 6010C
MC33244-9	**MH-D1**					
Corrosivity as pH		7.8				SW846 CHAP7
Ignitability (Flashpoint)		> 230			Deg. F	SW846 1020
Barium		0.47 B	0.50	0.0020	mg/l	SW846 6010C
Cadmium		2.8	0.0040	0.00024	mg/l	SW846 6010C
Chromium		0.0092 B	0.010	0.00073	mg/l	SW846 6010C
Selenium		0.0092 B	0.025	0.0027	mg/l	SW846 6010C
Silver		0.0014 B	0.0050	0.00096	mg/l	SW846 6010C

Summary of Hits

Job Number: MC33244
Account: WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY
Collected: 08/28/14

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
MC33244-10	**MH-D2**					
Corrosivity as pH		7.9				SW846 CHAP7
Ignitability (Flashpoint)		> 230			Deg. F	SW846 1020
Barium		2.2	0.50	0.0020	mg/l	SW846 6010C
Cadmium		0.038	0.0040	0.00024	mg/l	SW846 6010C
Chromium		0.0014 B	0.010	0.00073	mg/l	SW846 6010C
Selenium		0.0072 B	0.025	0.0027	mg/l	SW846 6010C
Silver		0.0016 B	0.0050	0.00096	mg/l	SW846 6010C
MC33244-11	**MH-B3**					
Corrosivity as pH		7.5				SW846 CHAP7
Ignitability (Flashpoint)		> 230			Deg. F	SW846 1020
Barium		0.25 B	0.50	0.0020	mg/l	SW846 6010C
Cadmium		0.0052	0.0040	0.00024	mg/l	SW846 6010C
Chromium		0.0047 B	0.010	0.00073	mg/l	SW846 6010C
Selenium		0.0083 B	0.025	0.0027	mg/l	SW846 6010C
Silver		0.0011 B	0.0050	0.00096	mg/l	SW846 6010C

New England ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID: MH-C3
Lab Sample ID: MC33244-1
Matrix: SO - Soil
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

Date Sampled: 08/28/14
Date Received: 08/29/14
Percent Solids: 89.7

Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed	By	Method
Arsenic	0.0024 U	D004	5.0	0.010	0.0024	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Barium	3.8	D005	100	0.50	0.0020	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Cadmium	0.025	D006	1.0	0.0040	0.00024	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Chromium	0.0047 B	D007	5.0	0.010	0.00073	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Lead	0.029	D008	5.0	0.010	0.0019	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	09/03/14	09/03/14	SA	SW846 7470A [1]
Selenium	0.0086 B	D010	1.0	0.025	0.0027	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Silver	0.00096 U	D011	5.0	0.0050	0.00096	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]

(1) Instrument QC Batch: MA17487
(2) Instrument QC Batch: MA17490
(3) Prep QC Batch: MP23556
(4) Prep QC Batch: MP23558

RL = Reporting Limit MDL = Method Detection Limit U = Indicates a result < MDL
MCL = Maximum Contamination Level (40 CFR 261 6/96) B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MH-C3		
Lab Sample ID:	MC33244-1	**Date Sampled:**	08/28/14
Matrix:	SO - Soil	**Date Received:**	08/29/14
		Percent Solids:	89.7
Project:	Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Corrosivity as pH	7.6			1	09/02/14	MA	SW846 CHAP7
Cyanide Reactivity	< 1.7	1.7	mg/kg	1	09/02/14 13:20	BF	SW846 CHAP7
Ignitability (Flashpoint)	> 230		Deg. F	1	09/03/14	BF	SW846 1020
Solids, Percent	89.7		%	1	09/02/14	HS	SM21 2540 B MOD.
Sulfide Reactivity	< 56	56	mg/kg	1	09/02/14	BF	SW846 CHAP7

RL = Reporting Limit

Report of Analysis

Client Sample ID: MH-A1
Lab Sample ID: MC33244-2
Matrix: SO - Soil
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

Date Sampled: 08/28/14
Date Received: 08/29/14
Percent Solids: 80.2

Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed	By	Method
Arsenic	0.0024 U	D004	5.0	0.010	0.0024	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Barium	1.4	D005	100	0.50	0.0020	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Cadmium	0.011	D006	1.0	0.0040	0.00024	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Chromium	0.083	D007	5.0	0.010	0.00073	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Lead	0.0030 B	D008	5.0	0.010	0.0019	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	09/03/14	09/03/14	SA	SW846 7470A [1]
Selenium	0.0069 B	D010	1.0	0.025	0.0027	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Silver	0.00096 U	D011	5.0	0.0050	0.00096	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]

(1) Instrument QC Batch: MA17487
(2) Instrument QC Batch: MA17490
(3) Prep QC Batch: MP23556
(4) Prep QC Batch: MP23558

RL = Reporting Limit MDL = Method Detection Limit U = Indicates a result < MDL
MCL = Maximum Contamination Level (40 CFR 261 6/96) B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MH-A1		
Lab Sample ID:	MC33244-2	**Date Sampled:**	08/28/14
Matrix:	SO - Soil	**Date Received:**	08/29/14
		Percent Solids:	80.2
Project:	Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Corrosivity as pH	6.9			1	09/02/14	MA	SW846 CHAP7
Cyanide Reactivity	< 1.9	1.9	mg/kg	1	09/02/14 13:20	BF	SW846 CHAP7
Ignitability (Flashpoint)	> 230		Deg. F	1	09/03/14	BF	SW846 1020
Solids, Percent	80.2		%	1	09/02/14	HS	SM21 2540 B MOD.
Sulfide Reactivity	< 62	62	mg/kg	1	09/02/14	BF	SW846 CHAP7

RL = Reporting Limit

Report of Analysis

Client Sample ID: MH-A2
Lab Sample ID: MC33244-3
Matrix: SO - Soil
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

Date Sampled: 08/28/14
Date Received: 08/29/14
Percent Solids: 52.9

Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed	By	Method
Arsenic	0.0024 U	D004	5.0	0.010	0.0024	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Barium	40.6	D005	100	5.0	0.020	mg/l	10	09/03/14	09/04/14	EAL	SW846 6010C [2]
Cadmium	0.0024 B	D006	1.0	0.0040	0.00024	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Chromium	0.0022 B	D007	5.0	0.010	0.00073	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Lead	0.0033 B	D008	5.0	0.010	0.0019	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	09/03/14	09/03/14	SA	SW846 7470A [1]
Selenium	0.0062 B	D010	1.0	0.025	0.0027	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Silver	0.0013 B	D011	5.0	0.0050	0.00096	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]

(1) Instrument QC Batch: MA17487
(2) Instrument QC Batch: MA17490
(3) Prep QC Batch: MP23556
(4) Prep QC Batch: MP23558

RL = Reporting Limit MDL = Method Detection Limit U = Indicates a result < MDL
MCL = Maximum Contamination Level (40 CFR 261 6/96) B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MH-A2		
Lab Sample ID:	MC33244-3	**Date Sampled:**	08/28/14
Matrix:	SO - Soil	**Date Received:**	08/29/14
		Percent Solids:	52.9
Project:	Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Corrosivity as pH	7.6			1	09/02/14	MA	SW846 CHAP7
Cyanide Reactivity	< 2.8	2.8	mg/kg	1	09/02/14 13:20	BF	SW846 CHAP7
Ignitability (Flashpoint)	> 230		Deg. F	1	09/03/14	BF	SW846 1020
Solids, Percent	52.9		%	1	09/02/14	HS	SM21 2540 B MOD.
Sulfide Reactivity	< 94	94	mg/kg	1	09/02/14	BF	SW846 CHAP7

RL = Reporting Limit

Report of Analysis

Client Sample ID: MH-A20
Lab Sample ID: MC33244-4
Matrix: SO - Soil
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

Date Sampled: 08/28/14
Date Received: 08/29/14
Percent Solids: 58.5

Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed	By	Method
Arsenic	0.0024 U	D004	5.0	0.010	0.0024	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Barium	112	D005	100	10	0.040	mg/l	20	09/03/14	09/04/14	EAL	SW846 6010C [2]
Cadmium	0.0089	D006	1.0	0.0040	0.00024	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Chromium	0.0018 B	D007	5.0	0.010	0.00073	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Lead	0.0019 U	D008	5.0	0.010	0.0019	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	09/03/14	09/03/14	SA	SW846 7470A [1]
Selenium	0.0066 B	D010	1.0	0.025	0.0027	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Silver	0.0010 B	D011	5.0	0.0050	0.00096	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]

(1) Instrument QC Batch: MA17487
(2) Instrument QC Batch: MA17490
(3) Prep QC Batch: MP23556
(4) Prep QC Batch: MP23558

RL = Reporting Limit MDL = Method Detection Limit U = Indicates a result < MDL
MCL = Maximum Contamination Level (40 CFR 261 6/96) B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MH-A20		
Lab Sample ID:	MC33244-4	**Date Sampled:**	08/28/14
Matrix:	SO - Soil	**Date Received:**	08/29/14
		Percent Solids:	58.5
Project:	Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Corrosivity as pH	8.3			1	09/02/14	MA	SW846 CHAP7
Cyanide Reactivity	< 2.6	2.6	mg/kg	1	09/02/14 13:20	BF	SW846 CHAP7
Ignitability (Flashpoint)	> 230		Deg. F	1	09/03/14	BF	SW846 1020
Solids, Percent	58.5		%	1	09/02/14	HS	SM21 2540 B MOD.
Sulfide Reactivity	< 85	85	mg/kg	1	09/02/14	BF	SW846 CHAP7

RL = Reporting Limit

Report of Analysis

Client Sample ID: MH-A4
Lab Sample ID: MC33244-5
Matrix: SO - Soil
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

Date Sampled: 08/28/14
Date Received: 08/29/14
Percent Solids: 47.1

Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed	By	Method
Arsenic	0.0040 B	D004	5.0	0.010	0.0024	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Barium	19.5	D005	100	5.0	0.020	mg/l	10	09/03/14	09/04/14	EAL	SW846 6010C [2]
Cadmium	0.0023 B	D006	1.0	0.0040	0.00024	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Chromium	0.0061 B	D007	5.0	0.010	0.00073	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Lead	0.0019 U	D008	5.0	0.010	0.0019	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	09/03/14	09/03/14	SA	SW846 7470A [1]
Selenium	0.0069 B	D010	1.0	0.025	0.0027	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Silver	0.00096 U	D011	5.0	0.0050	0.00096	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]

(1) Instrument QC Batch: MA17487
(2) Instrument QC Batch: MA17490
(3) Prep QC Batch: MP23556
(4) Prep QC Batch: MP23558

RL = Reporting Limit MDL = Method Detection Limit U = Indicates a result < MDL
MCL = Maximum Contamination Level (40 CFR 261 6/96) B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MH-A4		
Lab Sample ID:	MC33244-5	**Date Sampled:**	08/28/14
Matrix:	SO - Soil	**Date Received:**	08/29/14
		Percent Solids:	47.1
Project:	Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Corrosivity as pH	7.8			1	09/02/14	MA	SW846 CHAP7
Cyanide Reactivity	< 3.2	3.2	mg/kg	1	09/02/14 13:20	BF	SW846 CHAP7
Ignitability (Flashpoint)	> 230		Deg. F	1	09/03/14	BF	SW846 1020
Solids, Percent	47.1		%	1	09/02/14	HS	SM21 2540 B MOD.
Sulfide Reactivity	< 110	110	mg/kg	1	09/02/14	BF	SW846 CHAP7

RL = Reporting Limit

Report of Analysis

Client Sample ID: MH-A3
Lab Sample ID: MC33244-6
Matrix: SO - Soil
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

Date Sampled: 08/28/14
Date Received: 08/29/14
Percent Solids: 56.9

Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed	By	Method
Arsenic	0.0024 U	D004	5.0	0.010	0.0024	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Barium	17.4	D005	100	5.0	0.020	mg/l	10	09/03/14	09/04/14	EAL	SW846 6010C [2]
Cadmium	0.0018 B	D006	1.0	0.0040	0.00024	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Chromium	0.0020 B	D007	5.0	0.010	0.00073	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Lead	0.0019 U	D008	5.0	0.010	0.0019	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	09/03/14	09/03/14	SA	SW846 7470A [1]
Selenium	0.0062 B	D010	1.0	0.025	0.0027	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Silver	0.00096 U	D011	5.0	0.0050	0.00096	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]

(1) Instrument QC Batch: MA17487
(2) Instrument QC Batch: MA17490
(3) Prep QC Batch: MP23556
(4) Prep QC Batch: MP23558

RL = Reporting Limit MDL = Method Detection Limit U = Indicates a result < MDL
MCL = Maximum Contamination Level (40 CFR 261 6/96) B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MH-A3		
Lab Sample ID:	MC33244-6	**Date Sampled:**	08/28/14
Matrix:	SO - Soil	**Date Received:**	08/29/14
		Percent Solids:	56.9
Project:	Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Corrosivity as pH	7.8			1	09/02/14	MA	SW846 CHAP7
Cyanide Reactivity	< 2.6	2.6	mg/kg	1	09/02/14 13:20	BF	SW846 CHAP7
Ignitability (Flashpoint)	> 230		Deg. F	1	09/03/14	BF	SW846 1020
Solids, Percent	56.9		%	1	09/02/14	HS	SM21 2540 B MOD.
Sulfide Reactivity	< 85	85	mg/kg	1	09/02/14	BF	SW846 CHAP7

RL = Reporting Limit

Report of Analysis

Client Sample ID: MH-C4
Lab Sample ID: MC33244-7
Matrix: SO - Soil
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

Date Sampled: 08/28/14
Date Received: 08/29/14
Percent Solids: 55.7

Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed	By	Method
Arsenic	0.0024 U	D004	5.0	0.010	0.0024	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Barium	3.6	D005	100	0.50	0.0020	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Cadmium	0.018	D006	1.0	0.0040	0.00024	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Chromium	0.0015 B	D007	5.0	0.010	0.00073	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Lead	0.0019 U	D008	5.0	0.010	0.0019	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	09/03/14	09/03/14	SA	SW846 7470A [1]
Selenium	0.0087 B	D010	1.0	0.025	0.0027	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Silver	0.0014 B	D011	5.0	0.0050	0.00096	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]

(1) Instrument QC Batch: MA17487
(2) Instrument QC Batch: MA17490
(3) Prep QC Batch: MP23556
(4) Prep QC Batch: MP23558

RL = Reporting Limit MDL = Method Detection Limit U = Indicates a result < MDL
MCL = Maximum Contamination Level (40 CFR 261 6/96) B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MH-C4		
Lab Sample ID:	MC33244-7	**Date Sampled:**	08/28/14
Matrix:	SO - Soil	**Date Received:**	08/29/14
		Percent Solids:	55.7
Project:	Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Corrosivity as pH	8.0			1	09/02/14	MA	SW846 CHAP7
Cyanide Reactivity	< 2.7	2.7	mg/kg	1	09/02/14 13:30	BF	SW846 CHAP7
Ignitability (Flashpoint)	> 230		Deg. F	1	09/03/14	BF	SW846 1020
Solids, Percent	55.7		%	1	09/02/14	HS	SM21 2540 B MOD.
Sulfide Reactivity	< 90	90	mg/kg	1	09/02/14	BF	SW846 CHAP7

RL = Reporting Limit

Report of Analysis

Client Sample ID: MH-B2
Lab Sample ID: MC33244-8
Matrix: SO - Soil
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

Date Sampled: 08/28/14
Date Received: 08/29/14
Percent Solids: 68.6

Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed	By	Method
Arsenic	0.0024 U	D004	5.0	0.010	0.0024	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Barium	1.5	D005	100	0.50	0.0020	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Cadmium	0.044	D006	1.0	0.0040	0.00024	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Chromium	0.0066 B	D007	5.0	0.010	0.00073	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Lead	0.0039 B	D008	5.0	0.010	0.0019	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	09/03/14	09/03/14	SA	SW846 7470A [1]
Selenium	0.0062 B	D010	1.0	0.025	0.0027	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Silver	0.00096 U	D011	5.0	0.0050	0.00096	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]

(1) Instrument QC Batch: MA17487
(2) Instrument QC Batch: MA17490
(3) Prep QC Batch: MP23556
(4) Prep QC Batch: MP23558

RL = Reporting Limit MDL = Method Detection Limit U = Indicates a result < MDL
MCL = Maximum Contamination Level (40 CFR 261 6/96) B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MH-B2		
Lab Sample ID:	MC33244-8	**Date Sampled:**	08/28/14
Matrix:	SO - Soil	**Date Received:**	08/29/14
		Percent Solids:	68.6
Project:	Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Corrosivity as pH	7.5			1	09/02/14	MA	SW846 CHAP7
Cyanide Reactivity	< 2.1	2.1	mg/kg	1	09/02/14 13:30	BF	SW846 CHAP7
Ignitability (Flashpoint)	> 230		Deg. F	1	09/03/14	BF	SW846 1020
Solids, Percent	68.6		%	1	09/02/14	HS	SM21 2540 B MOD.
Sulfide Reactivity	< 71	71	mg/kg	1	09/02/14	BF	SW846 CHAP7

RL = Reporting Limit

Report of Analysis

Client Sample ID: MH-D1
Lab Sample ID: MC33244-9
Matrix: SO - Soil
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

Date Sampled: 08/28/14
Date Received: 08/29/14
Percent Solids: 61.3

Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed	By	Method
Arsenic	0.0024 U	D004	5.0	0.010	0.0024	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Barium	0.47 B	D005	100	0.50	0.0020	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Cadmium	2.8	D006	1.0	0.0040	0.00024	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Chromium	0.0092 B	D007	5.0	0.010	0.00073	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Lead [a]	0.0039 U	D008	5.0	0.020	0.0039	mg/l	2	09/03/14	09/04/14	EAL	SW846 6010C [2]
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	09/03/14	09/03/14	SA	SW846 7470A [1]
Selenium	0.0092 B	D010	1.0	0.025	0.0027	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Silver	0.0014 B	D011	5.0	0.0050	0.00096	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]

(1) Instrument QC Batch: MA17487
(2) Instrument QC Batch: MA17490
(3) Prep QC Batch: MP23556
(4) Prep QC Batch: MP23558

(a) Elevated RL due to dilution required for matrix interference.

RL = Reporting Limit MDL = Method Detection Limit U = Indicates a result < MDL
MCL = Maximum Contamination Level (40 CFR 261 6/96) B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MH-D1		
Lab Sample ID:	MC33244-9	**Date Sampled:**	08/28/14
Matrix:	SO - Soil	**Date Received:**	08/29/14
		Percent Solids:	61.3
Project:	Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Corrosivity as pH	7.8			1	09/02/14	MA	SW846 CHAP7
Cyanide Reactivity	< 2.4	2.4	mg/kg	1	09/02/14 13:30	BF	SW846 CHAP7
Ignitability (Flashpoint)	> 230		Deg. F	1	09/03/14	BF	SW846 1020
Solids, Percent	61.3		%	1	09/02/14	HS	SM21 2540 B MOD.
Sulfide Reactivity	< 82	82	mg/kg	1	09/02/14	BF	SW846 CHAP7

RL = Reporting Limit

Report of Analysis

Client Sample ID: MH-D2
Lab Sample ID: MC33244-10
Matrix: SO - Soil
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

Date Sampled: 08/28/14
Date Received: 08/29/14
Percent Solids: 60.9

Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed	By	Method
Arsenic	0.0024 U	D004	5.0	0.010	0.0024	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Barium	2.2	D005	100	0.50	0.0020	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Cadmium	0.038	D006	1.0	0.0040	0.00024	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Chromium	0.0014 B	D007	5.0	0.010	0.00073	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Lead	0.0019 U	D008	5.0	0.010	0.0019	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	09/03/14	09/03/14	SA	SW846 7470A [1]
Selenium	0.0072 B	D010	1.0	0.025	0.0027	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Silver	0.0016 B	D011	5.0	0.0050	0.00096	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]

(1) Instrument QC Batch: MA17487
(2) Instrument QC Batch: MA17490
(3) Prep QC Batch: MP23556
(4) Prep QC Batch: MP23558

RL = Reporting Limit MDL = Method Detection Limit U = Indicates a result < MDL
MCL = Maximum Contamination Level (40 CFR 261 6/96) B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MH-D2		
Lab Sample ID:	MC33244-10	**Date Sampled:**	08/28/14
Matrix:	SO - Soil	**Date Received:**	08/29/14
		Percent Solids:	60.9
Project:	Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Corrosivity as pH	7.9			1	09/02/14	MA	SW846 CHAP7
Cyanide Reactivity	< 2.5	2.5	mg/kg	1	09/02/14 13:30	BF	SW846 CHAP7
Ignitability (Flashpoint)	> 230		Deg. F	1	09/03/14	BF	SW846 1020
Solids, Percent	60.9		%	1	09/02/14	HS	SM21 2540 B MOD.
Sulfide Reactivity	< 82	82	mg/kg	1	09/02/14	BF	SW846 CHAP7

RL = Reporting Limit

Report of Analysis

Client Sample ID: MH-B3
Lab Sample ID: MC33244-11
Matrix: SO - Soil
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

Date Sampled: 08/28/14
Date Received: 08/29/14
Percent Solids: 57.9

Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed	By	Method
Arsenic	0.0024 U	D004	5.0	0.010	0.0024	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Barium	0.25 B	D005	100	0.50	0.0020	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Cadmium	0.0052	D006	1.0	0.0040	0.00024	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Chromium	0.0047 B	D007	5.0	0.010	0.00073	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Lead	0.0019 U	D008	5.0	0.010	0.0019	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	09/03/14	09/03/14	SA	SW846 7470A [1]
Selenium	0.0083 B	D010	1.0	0.025	0.0027	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Silver	0.0011 B	D011	5.0	0.0050	0.00096	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]

(1) Instrument QC Batch: MA17487
(2) Instrument QC Batch: MA17490
(3) Prep QC Batch: MP23556
(4) Prep QC Batch: MP23558

RL = Reporting Limit MDL = Method Detection Limit U = Indicates a result < MDL
MCL = Maximum Contamination Level (40 CFR 261 6/96) B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	MH-B3		
Lab Sample ID:	MC33244-11	**Date Sampled:**	08/28/14
Matrix:	SO - Soil	**Date Received:**	08/29/14
		Percent Solids:	57.9
Project:	Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Corrosivity as pH	7.5			1	09/02/14	MA	SW846 CHAP7
Cyanide Reactivity	< 2.6	2.6	mg/kg	1	09/02/14 13:30	BF	SW846 CHAP7
Ignitability (Flashpoint)	> 230		Deg. F	1	09/03/14	BF	SW846 1020
Solids, Percent	57.9		%	1	09/02/14	HS	SM21 2540 B MOD.
Sulfide Reactivity	< 86	86	mg/kg	1	09/02/14	BF	SW846 CHAP7

RL = Reporting Limit

New England ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody

CHAIN OF CUSTODY RECORD

Page 1 of 1

Project Number:	Site and Location:
4255.06	EPT Ithaca Ithaca NY
Contact Name:	**Contact Email:**
Lisa Bryda	lisa.bryda@wsp.com
Sampler's Name:	**Sampler's Signature:**
Daniel Lawicki	

Matrices: S = Soil; Aq = Water; A = Air; Bu = Bulk; W = Wipe; Bi = Biota; OW = Oily Waste; O = Other

Requested Analyses: TCLP Metals; Reactive Cyanide; Reactive Sulfides; Corrosivity

N° - mc 33244

Sample Identification:		Depth	Date	Time	Matrix	Number of Containers	TCLP Metals	Reactive Cyanide	Reactive Sulfides	Corrosivity	Remarks
MH-C3	-1	-	8/28/14	1120	S	1	✓	✓	✓	✓	
MH-A1	-2	-	8/28/14	1130	S	1	✓	✓	✓	✓	
MH-A2	-3	-	8/28/14	1135	S	1	✓	✓	✓	✓	
MH-A20	-4	-	8/28/14	1140	S	1	✓	✓	✓	✓	
MH-A4	-5	-	8/28/14	1150	S	1	✓	✓	✓	✓	
MH-A3	-6	-	8/28/14	1200	S	1	✓	✓	✓	✓	
MH-C4	-7	-	8/28/14	1235	S	1	✓	✓	✓	✓	
MH-B2	-8	-	8/28/14	1245	S	1	✓	✓	✓	✓	
MH-D1	-9	-	8/28/14	1250	S	1	✓	✓	✓	✓	
MH-D2	-10	-	8/28/14	1310	S	1	✓	✓	✓	✓	
MH-B3	-11	-	8/28/14	1320	S	1	✓	✓	✓	✓	
		-									
											14D

Relinquished by *(Signature)*:	8/28/14 1600 Date | Time	Received by *(Signature)*:	Laboratory Name: Accutest
Relinquished by *(Signature)*: FEDX	750 8-29-14 Date | Time	Received by *(Signature)*:	Laboratory Location: Marlborough MA
Turn-Around Time: STANDARD		Tracking Number: 8041 1713 0706	Custody Seal Numbers: 02133
			Method of Shipment: FedEx

WSP Environment & Energy

0.8°C

- [x] Reston Office: 11190 Sunrise Valley Dr., #300, Reston, VA 20191 / Tel: 703-709-6500
- [ ] Pittsburgh Office: 750 Holiday Dr., #410, Pittsburgh, PA 15220 / Tel: 412-604-1040
- [ ] San Jose Office: 2025 Gateway Place, #435, San Jose, CA 95110 / Tel: 408-453-6100
- [ ] New Jersey Office: 200 Cottontail Ln., Somerset, NJ 08873 / Tel: 732-564-0888
- [ ] Denver Office: 4600 South Ulster, #930, Denver, CO 80237 / Tel: 303-850-9200
- [ ] Minneapolis Office: 123 North 3rd St., #808, Minneapolis, MN 55401 / Tel: 612-343-0510
- [ ] Woburn Office: 300 Trade Center, Suite 4690, Woburn, MA 01801
- [ ] Cazenovia Office: 5 Sullivan St., Cazenovia, NY 13035 / Tel: 315-655-3900

MC33244: Chain of Custody
Page 1 of 2

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: MC33244 **Client:** WSP **Immediate Client Services Action Required:** No

Date / Time Received: 8/29/2014 **Delivery Method:** **Client Service Action Required at Login:** No

Project: 4255.06 **No. Coolers:** 1 **Airbill #'s:**

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	Infared gun		
3. Cooler media:	Ice (bag)		

Quality Control -Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☐	☑
2. Trip Blank listed on COC:	☐		☐	☑
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☐		☐	☑

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Comments

Accutest Laboratories
V:508.481.6200

495 Technology Center West, Bldg One
F: 508.481.7753

Marlborough, MA
www/accutest.com

MC33244: Chain of Custody
Page 2 of 2

Internal Sample Tracking Chronicle

WSP Environmental & Energy

Job No: MC33244

Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY
Project No: 4255-06

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC33244-1	Collected: 28-AUG-14 11:20 By: DL MH-C3		Received: 29-AUG-14 By:			
MC33244-1	SM21 2540 B MOD.	02-SEP-14	HS			%SOL
MC33244-1	SW846 CHAP7	02-SEP-14	MA			CORR
MC33244-1	SW846 CHAP7	02-SEP-14	BF	02-SEP-14	BF	SREAC
MC33244-1	SW846 CHAP7	02-SEP-14 13:20	BF	02-SEP-14	BF	CREAC
MC33244-1	SW846 1020	03-SEP-14	BF			IGN
MC33244-1	SW846 7470A	03-SEP-14 17:05	SA	03-SEP-14	EAL	EHG
MC33244-1	SW846 6010C	04-SEP-14 10:34	EAL	03-SEP-14	KR	EAG,EAS,EBA,ECD,ECR,EPB,ESE
MC33244-2	Collected: 28-AUG-14 11:30 By: DL MH-A1		Received: 29-AUG-14 By:			
MC33244-2	SM21 2540 B MOD.	02-SEP-14	HS			%SOL
MC33244-2	SW846 CHAP7	02-SEP-14	MA			CORR
MC33244-2	SW846 CHAP7	02-SEP-14	BF	02-SEP-14	BF	SREAC
MC33244-2	SW846 CHAP7	02-SEP-14 13:20	BF	02-SEP-14	BF	CREAC
MC33244-2	SW846 1020	03-SEP-14	BF			IGN
MC33244-2	SW846 7470A	03-SEP-14 17:12	SA	03-SEP-14	EAL	EHG
MC33244-2	SW846 6010C	04-SEP-14 11:40	EAL	03-SEP-14	KR	EAG,EAS,EBA,ECD,ECR,EPB,ESE
MC33244-3	Collected: 28-AUG-14 11:35 By: DL MH-A2		Received: 29-AUG-14 By:			
MC33244-3	SW846 CHAP7	02-SEP-14	MA			CORR
MC33244-3	SW846 CHAP7	02-SEP-14	BF	02-SEP-14	BF	SREAC
MC33244-3	SM21 2540 B MOD.	02-SEP-14	HS			%SOL
MC33244-3	SW846 CHAP7	02-SEP-14 13:20	BF	02-SEP-14	BF	CREAC
MC33244-3	SW846 1020	03-SEP-14	BF			IGN
MC33244-3	SW846 7470A	03-SEP-14 17:14	SA	03-SEP-14	EAL	EHG
MC33244-3	SW846 6010C	04-SEP-14 11:46	EAL	03-SEP-14	KR	EAG,EAS,ECD,ECR,EPB,ESE
MC33244-3	SW846 6010C	04-SEP-14 13:03	EAL	03-SEP-14	KR	EBA
MC33244-4	Collected: 28-AUG-14 11:40 By: DL MH-A20		Received: 29-AUG-14 By:			
MC33244-4	SW846 CHAP7	02-SEP-14	MA			CORR
MC33244-4	SM21 2540 B MOD.	02-SEP-14	HS			%SOL
MC33244-4	SW846 CHAP7	02-SEP-14	BF	02-SEP-14	BF	SREAC

Internal Sample Tracking Chronicle

WSP Environmental & Energy

Job No: MC33244

Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY
Project No: 4255-06

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC33244-4	SW846 CHAP7	02-SEP-14 13:20	BF	02-SEP-14	BF	CREAC
MC33244-4	SW846 1020	03-SEP-14	BF			IGN
MC33244-4	SW846 7470A	03-SEP-14 17:17	SA	03-SEP-14	EAL	EHG
MC33244-4	SW846 6010C	04-SEP-14 11:52	EAL	03-SEP-14	KR	EAG,EAS,ECD,ECR,EPB,ESE
MC33244-4	SW846 6010C	04-SEP-14 13:09	EAL	03-SEP-14	KR	EBA
MC33244-5	Collected: 28-AUG-14 11:50 By: DL MH-A4		Received: 29-AUG-14 By:			
MC33244-5	SW846 CHAP7	02-SEP-14	MA			CORR
MC33244-5	SW846 CHAP7	02-SEP-14	BF	02-SEP-14	BF	SREAC
MC33244-5	SM21 2540 B MOD.	02-SEP-14	HS			%SOL
MC33244-5	SW846 CHAP7	02-SEP-14 13:20	BF	02-SEP-14	BF	CREAC
MC33244-5	SW846 1020	03-SEP-14	BF			IGN
MC33244-5	SW846 7470A	03-SEP-14 17:19	SA	03-SEP-14	EAL	EHG
MC33244-5	SW846 6010C	04-SEP-14 11:58	EAL	03-SEP-14	KR	EAG,EAS,ECD,ECR,EPB,ESE
MC33244-5	SW846 6010C	04-SEP-14 13:15	EAL	03-SEP-14	KR	EBA
MC33244-6	Collected: 28-AUG-14 12:00 By: DL MH-A3		Received: 29-AUG-14 By:			
MC33244-6	SM21 2540 B MOD.	02-SEP-14	HS			%SOL
MC33244-6	SW846 CHAP7	02-SEP-14	MA			CORR
MC33244-6	SW846 CHAP7	02-SEP-14	BF	02-SEP-14	BF	SREAC
MC33244-6	SW846 CHAP7	02-SEP-14 13:20	BF	02-SEP-14	BF	CREAC
MC33244-6	SW846 1020	03-SEP-14	BF			IGN
MC33244-6	SW846 7470A	03-SEP-14 17:21	SA	03-SEP-14	EAL	EHG
MC33244-6	SW846 6010C	04-SEP-14 12:03	EAL	03-SEP-14	KR	EAG,EAS,ECD,ECR,EPB,ESE
MC33244-6	SW846 6010C	04-SEP-14 13:21	EAL	03-SEP-14	KR	EBA
MC33244-7	Collected: 28-AUG-14 12:35 By: DL MH-C4		Received: 29-AUG-14 By:			
MC33244-7	SW846 CHAP7	02-SEP-14	MA			CORR
MC33244-7	SM21 2540 B MOD.	02-SEP-14	HS			%SOL
MC33244-7	SW846 CHAP7	02-SEP-14	BF	02-SEP-14	BF	SREAC
MC33244-7	SW846 CHAP7	02-SEP-14 13:30	BF	02-SEP-14	BF	CREAC
MC33244-7	SW846 1020	03-SEP-14	BF			IGN
MC33244-7	SW846 7470A	03-SEP-14 17:28	SA	03-SEP-14	EAL	EHG
MC33244-7	SW846 6010C	04-SEP-14 12:09	EAL	03-SEP-14	KR	EAG,EAS,EBA,ECD,ECR,EPB,ESE

Internal Sample Tracking Chronicle

WSP Environmental & Energy

Job No: MC33244

Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY
Project No: 4255-06

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC33244-8	Collected: 28-AUG-14 12:45 By: DL MH-B2		Received: 29-AUG-14 By:			
MC33244-8	SM21 2540 B MOD.	02-SEP-14	HS			%SOL
MC33244-8	SW846 CHAP7	02-SEP-14	MA			CORR
MC33244-8	SW846 CHAP7	02-SEP-14	BF	02-SEP-14	BF	SREAC
MC33244-8	SW846 CHAP7	02-SEP-14 13:30	BF	02-SEP-14	BF	CREAC
MC33244-8	SW846 1020	03-SEP-14	BF			IGN
MC33244-8	SW846 7470A	03-SEP-14 17:30	SA	03-SEP-14	EAL	EHG
MC33244-8	SW846 6010C	04-SEP-14 12:15	EAL	03-SEP-14	KR	EAG,EAS,EBA,ECD,ECR,EPB,ESE
MC33244-9	Collected: 28-AUG-14 12:50 By: DL MH-D1		Received: 29-AUG-14 By:			
MC33244-9	SW846 CHAP7	02-SEP-14	MA			CORR
MC33244-9	SM21 2540 B MOD.	02-SEP-14	HS			%SOL
MC33244-9	SW846 CHAP7	02-SEP-14	BF	02-SEP-14	BF	SREAC
MC33244-9	SW846 CHAP7	02-SEP-14 13:30	BF	02-SEP-14	BF	CREAC
MC33244-9	SW846 1020	03-SEP-14	BF			IGN
MC33244-9	SW846 7470A	03-SEP-14 17:33	SA	03-SEP-14	EAL	EHG
MC33244-9	SW846 6010C	04-SEP-14 12:34	EAL	03-SEP-14	KR	EAG,EAS,EBA,ECD,ECR,ESE
MC33244-9	SW846 6010C	04-SEP-14 13:26	EAL	03-SEP-14	KR	EPB
MC33244-10	Collected: 28-AUG-14 13:10 By: DL MH-D2		Received: 29-AUG-14 By:			
MC33244-10	SW846 CHAP7	02-SEP-14	MA			CORR
MC33244-10	SM21 2540 B MOD.	02-SEP-14	HS			%SOL
MC33244-10	SW846 CHAP7	02-SEP-14	BF	02-SEP-14	BF	SREAC
MC33244-10	SW846 CHAP7	02-SEP-14 13:30	BF	02-SEP-14	BF	CREAC
MC33244-10	SW846 1020	03-SEP-14	BF			IGN
MC33244-10	SW846 7470A	03-SEP-14 17:08	SA	03-SEP-14	EAL	EHG
MC33244-10	SW846 6010C	04-SEP-14 12:40	EAL	03-SEP-14	KR	EAG,EAS,EBA,ECD,ECR,EPB,ESE
MC33244-11	Collected: 28-AUG-14 13:20 By: DL MH-B3		Received: 29-AUG-14 By:			
MC33244-11	SM21 2540 B MOD.	02-SEP-14	HS			%SOL
MC33244-11	SW846 CHAP7	02-SEP-14	MA			CORR

Internal Sample Tracking Chronicle

WSP Environmental & Energy

Job No: MC33244

Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY
Project No: 4255-06

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC33244-11	SW846 CHAP7	02-SEP-14	BF	02-SEP-14	BF	SREAC
MC33244-11	SW846 CHAP7	02-SEP-14 13:30	BF	02-SEP-14	BF	CREAC
MC33244-11	SW846 1020	03-SEP-14	BF			IGN
MC33244-11	SW846 7470A	03-SEP-14 17:10	SA	03-SEP-14	EAL	EHG
MC33244-11	SW846 6010C	04-SEP-14 12:46	EAL	03-SEP-14	KR	EAG,EAS,EBA,ECD,ECR,EPB,ESE

Accutest Internal Chain of Custody

Job Number: MC33244
Account: WSPVAR WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY
Received: 08/29/14

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC33244-1.1	Walk In Ref #9	Bijan Firowznin	09/02/14 08:09	Retrieve from Storage
MC33244-1.1	Bijan Firowznin	Walk In Ref #9	09/02/14 10:29	Return to Storage
MC33244-2.1	Walk In Ref #9	Bijan Firowznin	09/02/14 08:09	Retrieve from Storage
MC33244-2.1	Bijan Firowznin	Walk In Ref #9	09/02/14 10:29	Return to Storage
MC33244-3.1	Walk In Ref #9	Bijan Firowznin	09/02/14 08:09	Retrieve from Storage
MC33244-3.1	Bijan Firowznin	Walk In Ref #9	09/02/14 10:29	Return to Storage
MC33244-4.1	Walk In Ref #9	Bijan Firowznin	09/02/14 08:09	Retrieve from Storage
MC33244-4.1	Bijan Firowznin	Walk In Ref #9	09/02/14 10:29	Return to Storage
MC33244-5.1	Walk In Ref #9	Bijan Firowznin	09/02/14 08:09	Retrieve from Storage
MC33244-5.1	Bijan Firowznin	Walk In Ref #9	09/02/14 10:29	Return to Storage
MC33244-6.1	Walk In Ref #9	Bijan Firowznin	09/02/14 08:09	Retrieve from Storage
MC33244-6.1	Bijan Firowznin	Walk In Ref #9	09/02/14 10:29	Return to Storage
MC33244-7.1	Walk In Ref #9	Bijan Firowznin	09/02/14 08:09	Retrieve from Storage
MC33244-7.1	Bijan Firowznin	Walk In Ref #9	09/02/14 10:29	Return to Storage
MC33244-8.1	Walk In Ref #9	Bijan Firowznin	09/02/14 08:09	Retrieve from Storage
MC33244-8.1	Bijan Firowznin	Walk In Ref #9	09/02/14 10:29	Return to Storage
MC33244-9.1	Walk In Ref #9	Bijan Firowznin	09/02/14 08:09	Retrieve from Storage
MC33244-9.1	Bijan Firowznin	Walk In Ref #9	09/02/14 10:29	Return to Storage
MC33244-10.1	Walk In Ref #9	Bijan Firowznin	09/02/14 08:09	Retrieve from Storage
MC33244-10.1	Bijan Firowznin	Walk In Ref #9	09/02/14 10:29	Return to Storage
MC33244-11.1	Walk In Ref #9	Bijan Firowznin	09/02/14 08:09	Retrieve from Storage
MC33244-11.1	Bijan Firowznin	Walk In Ref #9	09/02/14 10:29	Return to Storage

New England ACCUTEST LABORATORIES

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Instrument Runlogs
- Initial and Continuing Calibration Blanks
- Initial and Continuing Calibration Checks
- High and Low Check Standards
- Interfering Element Check Standards
- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

File ID: H3090314W1.CSV Date Analyzed: 09/03/14 Methods: SW846 7470A
Analyst: SA Run ID: MA17487
Parameters: Hg

Time	Sample Description	Dilution Factor	PS Recov	Comments
15:43	MA17487-STD1	1		STDA
15:45	MA17487-STD2	1		STDB
15:48	MA17487-STD3	1		STDC
15:50	MA17487-STD4	1		STDD
15:52	MA17487-STD5	1		STDE
15:54	MA17487-STD6	1		STDF
15:57	MA17487-STD7	1		STDG
15:59	MA17487-STD8	1		STDH
16:02	MA17487-STD9	1		STDI
16:06	MA17487-ICV1	1		
16:09	MA17487-ICB1	1		
16:11	MA17487-CCV1	1		
16:15	MA17487-CCB1	1		
16:17	MA17487-CRI1	1		
16:19	MP23558-MB1	1		
16:22	MP23558-B1	1		
16:24	MP23558-B2	1		
16:26	MP23558-S1	1		
16:29	MP23558-S2	1		
16:31	MC33270-1A	1		(sample used for QC only; not part of login MC33244)
16:34	MP23558-LS1	1		
16:36	ZZZZZZ	1		
16:39	MP23558-LS2	1		
16:41	MA17487-CCV2	1		
16:43	MA17487-CCB2	1		
16:46	ZZZZZZ	1		
16:48	MP23558-LB1	1		
16:50	MP23558-LB2	1		
16:52	MA17487-CRI2	1		
16:55	MA17487-CCV3	1		
16:57	MA17487-CCB3	1		
17:01	ZZZZZZ	1		
17:03	ZZZZZZ	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

File ID: H3090314W1.CSV Date Analyzed: 09/03/14 Methods: SW846 7470A
Analyst: SA Run ID: MA17487
Parameters: Hg

Time	Sample Description	Dilution Factor	PS Recov	Comments
17:05	MC33244-1	1		
17:08	MC33244-10	1		
17:10	MC33244-11	1		
17:12	MC33244-2	1		
17:14	MC33244-3	1		
17:17	MC33244-4	1		
17:19	MC33244-5	1		
17:21	MC33244-6	1		
17:23	MA17487-CCV4	1		
17:26	MA17487-CCB4	1		
17:28	MC33244-7	1		
17:30	MC33244-8	1		
17:33	MC33244-9	1		
---------->	Last reportable sample/prep for job MC33244			
17:35	ZZZZZZ	1		
17:37	MP23557-MB1	1		
17:39	MP23557-B1	1		
17:42	MP23557-S1	1		
17:44	MP23557-S2	1		
17:47	MC33223-1	1		(sample used for QC only; not part of login MC33244)
17:49	ZZZZZZ	1		
17:51	MA17487-CCV5	1		
17:54	MA17487-CCB5	1		
17:56	ZZZZZZ	1		
17:58	ZZZZZZ	1		
18:01	ZZZZZZ	1		
18:03	ZZZZZZ	1		
18:05	MA17487-CRI3	1		
18:07	MA17487-CCV6	1		
18:10	MA17487-CCB6	1		
---------->	Last reportable CCB for job MC33244			
	Refer to raw data for calibration curve and standards.			

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

File ID: H3090314W1.CSV Date Analyzed: 09/03/14 Methods: SW846 7470A
QC Limits: result < RL Run ID: MA17487 Units: ug/l

Time:			16:09		16:15		16:43		16:57	
Sample ID:			ICB1		CCB1		CCB2		CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Mercury	0.20	.0088	0.010	<0.20	0.026	<0.20	-0.017	<0.20	-0.010	<0.20

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

File ID: H3090314W1.CSV Date Analyzed: 09/03/14 Methods: SW846 7470A
QC Limits: result < RL Run ID: MA17487 Units: ug/l

Time:			17:26		17:54		18:10	
Sample ID:			CCB4		CCB5		CCB6	
Metal	RL	IDL	raw	final	raw	final	raw	final
Mercury	0.20	.0088	0.0090	<0.20	-0.010	<0.20	-0.013	<0.20

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

File ID: H3090314W1.CSV Date Analyzed: 09/03/14 Methods: SW846 7470A
QC Limits: 90 to 110 % Recovery Run ID: MA17487 Units: ug/l

Time:		16:06			16:11			16:41	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Mercury	4	3.7	92.5	3.0	3.0	100.0	3	2.9	96.7

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

File ID: H3090314W1.CSV Date Analyzed: 09/03/14 Methods: SW846 7470A
QC Limits: 90 to 110 % Recovery Run ID: MA17487 Units: ug/l

Time:		16:55			17:23			17:51	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Mercury	3	2.5	83.3	3	3.1	103.3	3	3.1	103.3

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

File ID: H3090314W1.CSV Date Analyzed: 09/03/14 Methods: SW846 7470A
QC Limits: 90 to 110 % Recovery Run ID: MA17487 Units: ug/l

Time:		18:07	
Sample ID:	CCV	CCV6	
Metal	True	Results	% Rec
Mercury	3	3.3	110.0

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

File ID: H3090314W1.CSV Date Analyzed: 09/03/14 Methods: SW846 7470A
QC Limits: 70 to 130 % Recovery Run ID: MA17487 Units: ug/l

Time:			16:17		16:52		18:05	
Sample ID:	CRI	CRIA	CRI1		CRI2		CRI3	
Metal	True	True	Results	% Rec	Results	% Rec	Results	% Rec
Mercury	0.20		0.23	115.0	0.20	100.0	0.24	120.0

(*) Outside of QC limits
(anr) Analyte not requested

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

File ID: SB090414M1.ICP Date Analyzed: 09/04/14 Methods: SW846 6010C
Analyst: EAL Run ID: MA17490
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
08:20	MA17490-STD1	1		STD1
08:26	MA17490-STD2	1		STD2
08:31	MA17490-ICV1	1		
08:37	MA17490-ICB1	1		
08:42	MA17490-CCV1	1		
08:48	MA17490-CCB1	1		
08:53	MA17490-CRIB1	1		
09:07	MA17490-ICSA1	1		
09:13	MA17490-ICSAB1	1		
09:18	MP23556-B1	1		
09:24	MP23556-MB1	1		
09:29	MP23556-S1	1		
09:35	MP23556-S2	1		
09:40	MC33270-1A	1		(sample used for QC only; not part of login MC33244)
09:46	MP23556-SD1	5		
09:52	MP23556-LB1	1		
09:58	MA17490-CCV2	1		
10:03	MA17490-CCB2	1		
10:10	MP23556-LS1	1		
10:15	ZZZZZZ	1		
10:21	ZZZZZZ	1		
10:27	ZZZZZZ	1		
10:34	MC33244-1	1		
10:40	MA17490-CRIB2	1		
10:45	MA17490-ICSA2	1		
10:51	MA17490-ICSAB2	1		
10:57	MA17490-CCV3	1		
11:05	MA17490-CCB3	1		
11:11	ZZZZZZ	1		DNR: FOR IEC SYSTEM CHECK.
11:16	ZZZZZZ	1		DNR: FOR IEC SYSTEM CHECK.
11:22	ZZZZZZ	1		DNR: FOR IEC SYSTEM CHECK.
11:40	MC33244-2	1		
11:46	MC33244-3	1		BA OVER RANGE.

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

File ID: SB090414M1.ICP Date Analyzed: 09/04/14 Methods: SW846 6010C
Analyst: EAL Run ID: MA17490
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
11:52	MC33244-4	1		BA OVER RANGE.
11:58	MC33244-5	1		BA OVER RANGE.
12:03	MC33244-6	1		BA OVER RANGE.
12:09	MC33244-7	1		
12:15	MC33244-8	1		
12:22	MA17490-CCV4	1		
12:29	MA17490-CCB4	1		
12:34	MC33244-9	1		ISTD IN2306 FAILURE.
12:40	MC33244-10	1		
12:46	MC33244-11	1		
12:52	ZZZZZZ	1		
12:58	ZZZZZZ	1		
13:03	MC33244-3	10		
13:09	MC33244-4	20		
13:15	MC33244-5	10		
13:21	MC33244-6	10		
13:26	MC33244-9	2		
---------->	Last reportable sample/prep for job MC33244			
13:32	MA17490-CCV5	1		
13:38	MA17490-CCB5	1		
13:44	MA17490-CRIB3	1		
13:50	MA17490-ICSA3	1		
13:55	MA17490-ICSAB3	1		
14:01	MA17490-CCV6	1		
14:06	MA17490-CCB6	1		
---------->	Last reportable CCB for job MC33244			
	Refer to raw data for calibration curve and standards.			

INTERNAL STANDARD SUMMARY

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

File ID: SB090414M1.ICP Date Analyzed: 09/04/14 Methods: SW846 6010C
Analyst: EAL Run ID: MA17490
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
08:20	MA17490-STD1	4178 R	154230 R	17721 R	8558 R
08:26	MA17490-STD2	4087	155190	17348	7982
08:31	MA17490-ICV1	4095	155280	18964	8003
08:37	MA17490-ICB1	4168	162790	19103	8557
08:42	MA17490-CCV1	4091	156380	18752	8050
08:48	MA17490-CCB1	4143	160550	19142	8481
08:53	MA17490-CRIB1	4067	157970	18982	8194
09:07	MA17490-ICSA1	3587	138440	18281	6563
09:13	MA17490-ICSAB1	3570	138800	18218	6544
09:18	MP23556-B1	3531	137190	18600	6306
09:24	MP23556-MB1	4036	161090	19405	8249
09:29	MP23556-S1	3442	136760	18760	6208
09:35	MP23556-S2	3415	135590	18574	6188
09:40	MC33270-1A	3446	135650	18599	6277
09:46	MP23556-SD1	3799	148370	18982	7179
09:52	MP23556-LB1	3491	136060	18927	6371
09:58	MA17490-CCV2	4002	157540	19501	7896
10:03	MA17490-CCB2	4063	160060	19378	8343
10:10	MP23556-LS1	3531	138660	19193	6310
10:15	ZZZZZZ	3565	139360	19282	6422
10:21	ZZZZZZ	3494	137370	18904	6302
10:27	ZZZZZZ	3533	138600	19174	6402
10:34	MC33244-1	3372	135390	19147	6110
10:40	MA17490-CRIB2	3996	158130	19446	8106
10:45	MA17490-ICSA2	3562	138190	18431	6562
10:51	MA17490-ICSAB2	3569	138560	18417	6568
10:57	MA17490-CCV3	4031	157110	19253	7937
11:05	MA17490-CCB3	4051	160950	19461	8313
11:11	ZZZZZZ	3986	156530	19162	8212
11:16	ZZZZZZ	4094	150800	19604	7452
11:22	ZZZZZZ	3752	143720	18698	6969
11:40	MC33244-2	3461	135560	18667	6257
11:46	MC33244-3	3309	132120	18458	6119

INTERNAL STANDARD SUMMARY

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

File ID: SB090414M1.ICP Date Analyzed: 09/04/14 Methods: SW846 6010C
Analyst: EAL Run ID: MA17490
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
11:52	MC33244-4	3247	128170	18213	6142
11:58	MC33244-5	3470	137260	19053	6312
12:03	MC33244-6	3334	133530	18804	6117
12:09	MC33244-7	3311	132640	18619	6030
12:15	MC33244-8	3376	135500	19025	6209
12:22	MA17490-CCV4	4017	158530	19672	7953
12:29	MA17490-CCB4	4054	159030	19291	8356
12:34	MC33244-9	3277	130310	18270	5929 !a
12:40	MC33244-10	3307	131520	18269	6011
12:46	MC33244-11	3335	133080	18588	6082
12:52	ZZZZZZ	3325	133740	18750	6060
12:58	ZZZZZZ	3318	134260	19113	6054
13:03	MC33244-3	3854	151950	19340	7440
13:09	MC33244-4	3913	154060	19219	7682
13:15	MC33244-5	3880	151990	19338	7505
13:21	MC33244-6	3855	151810	19415	7439
13:26	MC33244-9	3485	138110	18841	6421
13:32	MA17490-CCV5	4013	158440	19531	7955
13:38	MA17490-CCB5	4060	160340	19435	8380
13:44	MA17490-CRIB3	4021	157470	19468	8169
13:50	MA17490-ICSA3	3562	138430	18545	6582
13:55	MA17490-ICSAB3	3564	138190	18406	6585
14:01	MA17490-CCV6	4022	157290	19263	7951
14:06	MA17490-CCB6	4084	160450	19378	8410

R = Reference for ISTD limits. ! = Outside limits.

LEGEND:

Istd#	Parameter	Limits
Istd#1	Yttrium (2243)	70-130 %
Istd#2	Yttrium (3600)	70-130 %
Istd#3	Yttrium (3710)	70-130 %
Istd#4	Indium	70-130 %

(a) No element reported by this internal standard.

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

File ID: SB090414M1.ICP Date Analyzed: 09/04/14 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA17490 Units: ug/l

Time:			08:37		08:48		10:03		11:05	
Sample ID:			ICB1		CCB1		CCB2		CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	7.5								
Antimony	6.0	.94								
Arsenic	10	.64	-0.40	<10	-0.20	<10	-0.10	<10	-0.60	<10
Barium	500	.17	-0.10	<500	0.0	<500	-0.10	<500	0.0	<500
Beryllium	4.0	.04								
Bismuth	50	1								
Boron	100	1.1								
Cadmium	4.0	.16	0.20	<4.0	0.20	<4.0	0.30	<4.0	0.20	<4.0
Calcium	5000	3.8								
Chromium	10	.43	0.0	<10	0.40	<10	0.20	<10	-0.10	<10
Cobalt	50	.19								
Copper	25	.44	anr							
Gold	50	.67								
Iron	100	1.9								
Lead	10	.83	0.60	<10	0.80	<10	0.80	<10	0.50	<10
Lithium	500	1.5								
Magnesium	5000	27								
Manganese	15	.04								
Molybdenum	100	1.6								
Nickel	40	.23	anr							
Palladium	50	.98								
Platinum	50	2.3								
Potassium	5000	28								
Selenium	25	1.8	-0.70	<25	-0.30	<25	0.90	<25	-0.20	<25
Silicon	100	5.9								
Silver	5.0	.5	0.0	<5.0	0.10	<5.0	0.30	<5.0	0.20	<5.0
Sodium	5000	6.5								
Sulfur	50	2								
Strontium	10	.079								
Thallium	5.0	1.3								
Tin	100	.74								
Titanium	50	.25								
Tungsten	100	2.6								

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

File ID: SB090414M1.ICP Date Analyzed: 09/04/14 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA17490 Units: ug/l

Time:			08:37		08:48		10:03		11:05	
Sample ID:			ICB1		CCB1		CCB2		CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Vanadium	10	.38								
Zinc	100	.24	anr							
Zirconium	50	.19								

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

File ID: SB090414M1.ICP Date Analyzed: 09/04/14 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA17490 Units: ug/l

Time:			12:29		13:38		14:06	
Sample ID:			CCB4		CCB5		CCB6	
Metal	RL	IDL	raw	final	raw	final	raw	final
Aluminum	200	7.5						
Antimony	6.0	.94						
Arsenic	10	.64	0.10	<10	-0.50	<10	-0.20	<10
Barium	500	.17	0.10	<500	0.10	<500	0.10	<500
Beryllium	4.0	.04						
Bismuth	50	1						
Boron	100	1.1						
Cadmium	4.0	.16	0.20	<4.0	0.40	<4.0	0.30	<4.0
Calcium	5000	3.8						
Chromium	10	.43	0.10	<10	0.30	<10	0.30	<10
Cobalt	50	.19						
Copper	25	.44	anr					
Gold	50	.67						
Iron	100	1.9						
Lead	10	.83	0.40	<10	0.80	<10	0.80	<10
Lithium	500	1.5						
Magnesium	5000	27						
Manganese	15	.04						
Molybdenum	100	1.6						
Nickel	40	.23	anr					
Palladium	50	.98						
Platinum	50	2.3						
Potassium	5000	28						
Selenium	25	1.8	0.0	<25	0.40	<25	-0.60	<25
Silicon	100	5.9						
Silver	5.0	.5	0.20	<5.0	0.30	<5.0	0.10	<5.0
Sodium	5000	6.5						
Sulfur	50	2						
Strontium	10	.079						
Thallium	5.0	1.3						
Tin	100	.74						
Titanium	50	.25						
Tungsten	100	2.6						

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

File ID: SB090414M1.ICP Date Analyzed: 09/04/14 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA17490 Units: ug/l

Time:			12:29		13:38		14:06	
Sample ID:			CCB4		CCB5		CCB6	
Metal	RL	IDL	raw	final	raw	final	raw	final
Vanadium	10	.38						
Zinc	100	.24	anr					
Zirconium	50	.19						

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

File ID: SB090414M1.ICP Date Analyzed: 09/04/14 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA17490 Units: ug/l

Time:		08:31			08:42			09:58	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum									
Antimony									
Arsenic	3000	3010	100.3	2000	1960	98.0	2000	1930	96.5
Barium	3000	3040	101.3	2000	1990	99.5	2000	1940	97.0
Beryllium									
Bismuth									
Boron									
Cadmium	3000	3020	100.7	2000	1950	97.5	2000	1920	96.0
Calcium									
Chromium	3000	3040	101.3	2000	1940	97.0	2000	1860	93.0
Cobalt									
Copper	anr								
Gold									
Iron									
Lead	3000	3020	100.7	2000	1960	98.0	2000	1940	97.0
Lithium									
Magnesium									
Manganese									
Molybdenum									
Nickel	anr								
Palladium									
Platinum									
Potassium									
Selenium	3000	3020	100.7	2000	1980	99.0	2000	1970	98.5
Silicon									
Silver	500	519	103.8	250	244	97.6	250	236	94.4
Sodium									
Sulfur									
Strontium									
Thallium									
Tin									
Titanium									
Tungsten									

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

File ID: SB090414M1.ICP Date Analyzed: 09/04/14 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA17490 Units: ug/l

Time:		08:31			08:42			09:58	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Vanadium									
Zinc	anr								
Zirconium									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

File ID: SB090414M1.ICP Date Analyzed: 09/04/14 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA17490 Units: ug/l

Time:		10:57			12:22			13:32	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum									
Antimony									
Arsenic	2000	1920	96.0	2000	1940	97.0	2000	1950	97.5
Barium	2000	1940	97.0	2000	1950	97.5	2000	1960	98.0
Beryllium									
Bismuth									
Boron									
Cadmium	2000	1920	96.0	2000	1940	97.0	2000	1940	97.0
Calcium									
Chromium	2000	1860	93.0	2000	1870	93.5	2000	1870	93.5
Cobalt									
Copper	anr								
Gold									
Iron									
Lead	2000	1940	97.0	2000	1930	96.5	2000	1930	96.5
Lithium									
Magnesium									
Manganese									
Molybdenum									
Nickel	anr								
Palladium									
Platinum									
Potassium									
Selenium	2000	1960	98.0	2000	1980	99.0	2000	1980	99.0
Silicon									
Silver	250	237	94.8	250	237	94.8	250	239	95.6
Sodium									
Sulfur									
Strontium									
Thallium									
Tin									
Titanium									
Tungsten									

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

File ID: SB090414M1.ICP Date Analyzed: 09/04/14 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA17490 Units: ug/l

Time:		10:57			12:22			13:32	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Vanadium									
Zinc	anr								
Zirconium									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

File ID: SB090414M1.ICP Date Analyzed: 09/04/14 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA17490 Units: ug/l

Time:		14:01	
Sample ID:	CCV	CCV6	
Metal	True	Results	% Rec
Aluminum			
Antimony			
Arsenic	2000	1940	97.0
Barium	2000	1940	97.0
Beryllium			
Bismuth			
Boron			
Cadmium	2000	1930	96.5
Calcium			
Chromium	2000	1870	93.5
Cobalt			
Copper	anr		
Gold			
Iron			
Lead	2000	1930	96.5
Lithium			
Magnesium			
Manganese			
Molybdenum			
Nickel	anr		
Palladium			
Platinum			
Potassium			
Selenium	2000	1970	98.5
Silicon			
Silver	250	239	95.6
Sodium			
Sulfur			
Strontium			
Thallium			
Tin			
Titanium			
Tungsten			

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

File ID: SB090414M1.ICP Date Analyzed: 09/04/14 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA17490 Units: ug/l

Time:		14:01	
Sample ID:	CCV	CCV6	
Metal	True	Results	% Rec
Vanadium			
Zinc	anr		
Zirconium			

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

File ID: SB090414M1.ICP Date Analyzed: 09/04/14 Methods: SW846 6010C
QC Limits: 70 to 130 % Recovery Run ID: MA17490 Units: ug/l

Time:		08:53		10:40		13:44	
Sample ID:	CRIB	CRIB1		CRIB2		CRIB3	
Metal	True	Results	% Rec	Results	% Rec	Results	% Rec
Aluminum	200						
Antimony	6.0						
Arsenic	10	11.2	112.0	10.0	100.0	10.5	105.0
Barium	500	497	99.4	476	95.2	481	96.2
Beryllium	4.0						
Bismuth	50						
Boron	100						
Cadmium	4.0	3.9	97.5	3.8	95.0	3.9	97.5
Calcium	5000						
Chromium	10	10.0	100.0	9.5	95.0	9.8	98.0
Cobalt	50						
Copper	25						
Gold	50						
Iron	100						
Lead	10	10.6	106.0	9.7	97.0	10.4	104.0
Lithium	500						
Magnesium	5000						
Manganese	15						
Molybdenum	100						
Nickel	40						
Palladium	50						
Platinum	50						
Potassium	5000						
Selenium	25	26.5	106.0	24.0	96.0	26.0	104.0
Silicon	100						
Silver	5.0	5.1	102.0	4.8	96.0	5.3	106.0
Sodium	5000						
Sulfur	50						
Strontium	10						
Thallium	5.0						
Tin	100						
Titanium	50						
Tungsten	100						

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

File ID: SB090414M1.ICP Date Analyzed: 09/04/14 Methods: SW846 6010C
QC Limits: 70 to 130 % Recovery Run ID: MA17490 Units: ug/l

Time:		08:53		10:40		13:44	
Sample ID:	CRIB	CRIB1		CRIB2		CRIB3	
Metal	True	Results	% Rec	Results	% Rec	Results	% Rec
Vanadium	10						
Zinc	100						
Zirconium	50						

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

File ID: SB090414M1.ICP Date Analyzed: 09/04/14 Methods: SW846 6010C
QC Limits: 80 to 120 % Recovery Run ID: MA17490 Units: ug/l

Time:			09:07		09:13		10:45		10:51	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1		ICSA2		ICSAB2	
Metal	True	True	Results	% Rec	Results	% Rec	Results	% Rec	Results	% Rec
Aluminum	500000	500000	505000	101.0	506000	101.2	505000	101.0	504000	100.8
Antimony		2000	-0.20		2120	106.0	0.40		2120	106.0
Arsenic		2000	-1.3		2000	100.0	-1.5		1990	99.5
Barium		500	0.0		468	93.6	0.30		471	94.2
Beryllium		500	0.0		484	96.8	0.10		476	95.2
Bismuth		500	3.3		533	106.6	5.0		528	105.6
Boron		1000	-0.50		949	94.9	0.0		956	95.6
Cadmium		1000	-1.0		983	98.3	-0.80		988	98.8
Calcium	500000	500000	477000	95.4	477000	95.4	462000	92.4	455000	91.0
Chromium		500	0.30		428	85.6	0.20		435	87.0
Cobalt		500	-0.70		464	92.8	-0.40		463	92.6
Copper		500	-0.10		538	107.6	-0.50		533	106.6
Gold		500	-13		531	106.2	-12		522	104.4
Iron	200000	200000	176000	88.0	178000	89.0	175000	87.5	175000	87.5
Lead		1000	-2.1		910	91.0	-0.60		902	90.2
Lithium		500	6.2		546	109.2	8.2		541	108.2
Magnesium	500000	500000	500000	100.0	502000	100.4	495000	99.0	494000	98.8
Manganese		500	23.8		504	100.8	23.6		503	100.6
Molybdenum		1000	2.2		913	91.3	1.9		913	91.3
Nickel		1000	-0.40		963	96.3	0.0		945	94.5
Palladium		500	-24		533	106.6	-22		535	107.0
Platinum		500	-14		499	99.8	-12		500	100.0
Potassium			-120		-140		-14		-54	
Selenium		2000	6.3		2050	102.5	3.0		2030	101.5
Silicon		2000	13.7		2130	106.5	15.0		2100	105.0
Silver		1000	0.10		974	97.4	-1.0		980	98.0
Sodium			110		123		618		518	
Sulfur		500	12.0		492	98.4	12.2		498	99.6
Strontium		1000	1.2		1070	107.0	1.2		1040	104.0
Thallium		2000	1.0		1770	88.5	-0.60		1770	88.5
Tin		1000	2.0		967	96.7	1.0		952	95.2
Titanium		500	1.0		457	91.4	0.90		463	92.6
Tungsten		2000	18.4		1800	90.0	14.4		1810	90.5

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

File ID: SB090414M1.ICP Date Analyzed: 09/04/14 Methods: SW846 6010C
QC Limits: 80 to 120 % Recovery Run ID: MA17490 Units: ug/l

Time:			09:07		09:13		10:45		10:51	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1		ICSA2		ICSAB2	
Metal	True	True	Results	% Rec	Results	% Rec	Results	% Rec	Results	% Rec
Vanadium		500	-0.20		488	97.6	-0.50		487	97.4
Zinc		1000	0.80		851	85.1	0.70		849	84.9
Zirconium		500	1.2		344	68.8*	0.80		327	65.4*

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

File ID: SB090414M1.ICP Date Analyzed: 09/04/14 Methods: SW846 6010C
QC Limits: 80 to 120 % Recovery Run ID: MA17490 Units: ug/l

Time:			13:50		13:55	
Sample ID:	ICSA	ICSAB	ICSA3		ICSAB3	
Metal	True	True	Results	% Rec	Results	% Rec
Aluminum	500000	500000	500000	100.0	501000	100.2
Antimony		2000	-0.90		2120	106.0
Arsenic		2000	-0.20		2010	100.5
Barium		500	0.60		473	94.6
Beryllium		500	0.0		476	95.2
Bismuth		500	5.4		526	105.2
Boron		1000	1.2		966	96.6
Cadmium		1000	-0.80		996	99.6
Calcium	500000	500000	450000	90.0	452000	90.4
Chromium		500	0.30		439	87.8
Cobalt		500	-0.40		463	92.6
Copper		500	-0.20		533	106.6
Gold		500	-11		518	103.6
Iron	200000	200000	174000	87.0	175000	87.5
Lead		1000	-0.10		902	90.2
Lithium		500	5.9		539	107.8
Magnesium	500000	500000	490000	98.0	491000	98.2
Manganese		500	23.4		504	100.8
Molybdenum		1000	2.6		920	92.0
Nickel		1000	-0.30		937	93.7
Palladium		500	-22		538	107.6
Platinum		500	-11		507	101.4
Potassium			-52		-60	
Selenium		2000	2.4		2040	102.0
Silicon		2000	15.7		2100	105.0
Silver		1000	-1.9		990	99.0
Sodium			494		522	
Sulfur		500	14.6		507	101.4
Strontium		1000	1.2		1040	104.0
Thallium		2000	-1.7		1790	89.5
Tin		1000	2.7		944	94.4
Titanium		500	0.80		467	93.4
Tungsten		2000	16.4		1830	91.5

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

File ID: SB090414M1.ICP Date Analyzed: 09/04/14 Methods: SW846 6010C
QC Limits: 80 to 120 % Recovery Run ID: MA17490 Units: ug/l

Time:			13:50		13:55	
Sample ID:	ICSA	ICSAB	ICSA3		ICSAB3	
Metal	True	True	Results	% Rec	Results	% Rec
Vanadium		500	-0.20		485	97.0
Zinc		1000	0.70		852	85.2
Zirconium		500	1.6		351	70.2*

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

QC Batch ID: MP23556
Matrix Type: LEACHATE

Methods: SW846 6010C
Units: mg/l

Prep Date: 09/03/14

Metal	RL	IDL	MDL	MB raw	final
Aluminum	0.20	.0075	.013		
Antimony	0.0060	.00094	.0024		
Arsenic	0.010	.00064	.0024	0.00030	<0.010
Barium	0.50	.00017	.002	0.0	<0.50
Beryllium	0.0040	.00004	.00018		
Bismuth	0.050	.001	.003		
Boron	0.10	.0011	.0034		
Cadmium	0.0040	.00016	.00024	0.00010	<0.0040
Calcium	5.0	.0038	.021		
Chromium	0.010	.00043	.00073	0.00020	<0.010
Cobalt	0.050	.00019	.0006		
Copper	0.025	.00044	.0036		
Gold	0.050	.00067	.0014		
Iron	0.10	.0019	.0074		
Lead	0.010	.00083	.0019	0.00020	<0.010
Lithium	0.50	.0015	.045		
Magnesium	5.0	.027	.074		
Manganese	0.015	.00004	.00035		
Molybdenum	0.10	.0016	.00081		
Nickel	0.040	.00023	.00057		
Palladium	0.050	.00098	.0065		
Platinum	0.050	.0023	.0051		
Potassium	5.0	.028	.069		
Selenium	0.025	.0018	.0027	0.0	<0.025
Silicon	0.10	.0059	.021		
Silver	0.0050	.0005	.00096	0.00010	<0.0050
Sodium	5.0	.0065	.022		
Sulfur	0.050	.002	.0097		
Strontium	0.010	.000079	.00018		
Thallium	0.0050	.0013	.0015		
Tin	0.10	.00074	.0033		
Titanium	0.050	.00025	.00089		
Tungsten	0.10	.0026	.0052		

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

QC Batch ID: MP23556
Matrix Type: LEACHATE

Methods: SW846 6010C
Units: mg/l

Prep Date: 09/03/14

Metal	RL	IDL	MDL	MB raw	final
Vanadium	0.010	.00038	.00072		
Zinc	0.10	.00024	.0042		
Zirconium	0.050	.00019	.0013		

Associated samples MP23556: MC33244-1, MC33244-2, MC33244-3, MC33244-4, MC33244-5, MC33244-6, MC33244-7, MC33244-8, MC33244-9, MC33244-10, MC33244-11

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

QC Batch ID: MP23556
Matrix Type: LEACHATE

Methods: SW846 6010C
Units: mg/l

Prep Date: 09/03/14

Metal	MC33270-1A Original	MS	Spikelot MPICP	% Rec	QC Limits
Aluminum					
Antimony					
Arsenic	0.026	0.57	0.50	108.8	75-125
Barium	0.40	2.4	2.0	100.0	75-125
Beryllium					
Bismuth					
Boron					
Cadmium	0.00090	0.53	0.50	105.8	75-125
Calcium					
Chromium	0.0049	0.45	0.50	89.0	75-125
Cobalt					
Copper	anr				
Gold					
Iron					
Lead	0.0028	0.99	1.0	98.7	75-125
Lithium					
Magnesium					
Manganese					
Molybdenum					
Nickel	anr				
Palladium					
Platinum					
Potassium					
Selenium	0.0051	0.59	0.50	117.0	75-125
Silicon					
Silver	0.00060	0.18	0.20	89.7	75-125
Sodium					
Sulfur					
Strontium					
Thallium					
Tin					
Titanium					
Tungsten					

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

QC Batch ID: MP23556
Matrix Type: LEACHATE

Methods: SW846 6010C
Units: mg/l

Prep Date: 09/03/14

Metal	MC33270-1A Original MS	Spikelot MPICP	% Rec	QC Limits
Vanadium				
Zinc	anr			
Zirconium				

Associated samples MP23556: MC33244-1, MC33244-2, MC33244-3, MC33244-4, MC33244-5, MC33244-6, MC33244-7, MC33244-8, MC33244-9, MC33244-10, MC33244-11

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

QC Batch ID: MP23556
Matrix Type: LEACHATE

Methods: SW846 6010C
Units: mg/l

Prep Date: 09/03/14

Metal	MC33270-1A Original	MSD	Spikelot MPICP	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic	0.026	0.58	0.50	110.8	1.7	20
Barium	0.40	2.4	2.0	100.0	0.0	20
Beryllium						
Bismuth						
Boron						
Cadmium	0.00090	0.53	0.50	105.8	0.0	20
Calcium						
Chromium	0.0049	0.46	0.50	91.0	2.2	20
Cobalt						
Copper	anr					
Gold						
Iron						
Lead	0.0028	0.99	1.0	98.7	0.0	20
Lithium						
Magnesium						
Manganese						
Molybdenum						
Nickel	anr					
Palladium						
Platinum						
Potassium						
Selenium	0.0051	0.60	0.50	119.0	1.7	20
Silicon						
Silver	0.00060	0.19	0.20	94.7	5.4	20
Sodium						
Sulfur						
Strontium						
Thallium						
Tin						
Titanium						
Tungsten						

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

QC Batch ID: MP23556 Methods: SW846 6010C
Matrix Type: LEACHATE Units: mg/l

Prep Date: 09/03/14

Metal	MC33270-1A Original MSD	Spikelot MPICP	% Rec	MSD RPD	QC Limit
Vanadium					
Zinc	anr				
Zirconium					

Associated samples MP23556: MC33244-1, MC33244-2, MC33244-3, MC33244-4, MC33244-5, MC33244-6, MC33244-7, MC33244-8, MC33244-9, MC33244-10, MC33244-11

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

QC Batch ID: MP23556
Matrix Type: LEACHATE

Methods: SW846 6010C
Units: mg/l

Prep Date: 09/03/14

Metal	JB75106-1A Original	LS	Spikelot MPICP	% Rec	QC Limits
Aluminum					
Antimony					
Arsenic	0.00070	0.56	0.50	111.9	75-125
Barium	0.55	2.5	2.0	97.5	75-125
Beryllium					
Bismuth					
Boron					
Cadmium	0.0024	0.54	0.50	107.5	75-125
Calcium					
Chromium	0.0061	0.48	0.50	94.8	75-125
Cobalt					
Copper	anr				
Gold					
Iron					
Lead	0.23	1.2	1.0	97.0	75-125
Lithium					
Magnesium					
Manganese					
Molybdenum					
Nickel	anr				
Palladium					
Platinum					
Potassium					
Selenium	0.0059	0.60	0.50	118.8	75-125
Silicon					
Silver	0.0	0.19	0.20	95.0	75-125
Sodium					
Sulfur					
Strontium					
Thallium					
Tin					
Titanium					
Tungsten					

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

QC Batch ID: MP23556 Methods: SW846 6010C
Matrix Type: LEACHATE Units: mg/l

Prep Date: 09/03/14

Metal	JB75106-1A Original LS	Spikelot MPICP	% Rec	QC Limits
Vanadium				
Zinc	anr			
Zirconium				

Associated samples MP23556: MC33244-1, MC33244-2, MC33244-3, MC33244-4, MC33244-5, MC33244-6, MC33244-7, MC33244-8, MC33244-9, MC33244-10, MC33244-11

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

QC Batch ID: MP23556
Matrix Type: LEACHATE

Methods: SW846 6010C
Units: mg/l

Prep Date: 09/03/14

Metal	BSP Result	Spikelot MPICP	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic	0.52	0.50	104.0	80-120
Barium	1.8	2.0	90.0	80-120
Beryllium				
Bismuth				
Boron				
Cadmium	0.50	0.50	100.0	80-120
Calcium				
Chromium	0.44	0.50	88.0	80-120
Cobalt				
Copper	anr			
Gold				
Iron				
Lead	0.96	1.0	96.0	80-120
Lithium				
Magnesium				
Manganese				
Molybdenum				
Nickel	anr			
Palladium				
Platinum				
Potassium				
Selenium	0.57	0.50	114.0	80-120
Silicon				
Silver	0.18	0.20	90.0	80-120
Sodium				
Sulfur				
Strontium				
Thallium				
Tin				
Titanium				
Tungsten				

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

QC Batch ID: MP23556
Matrix Type: LEACHATE

Methods: SW846 6010C
Units: mg/l

Prep Date: 09/03/14

Metal	BSP Result	Spikelot MPICP	% Rec	QC Limits
Vanadium				
Zinc	anr			
Zirconium				

Associated samples MP23556: MC33244-1, MC33244-2, MC33244-3, MC33244-4, MC33244-5, MC33244-6, MC33244-7, MC33244-8, MC33244-9, MC33244-10, MC33244-11

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

QC Batch ID: MP23556
Matrix Type: LEACHATE

Methods: SW846 6010C
Units: ug/l

Prep Date: 09/03/14

Metal	MC33270-1A Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony				
Arsenic	26.3	23.2	11.8 (a)	0-10
Barium	401	403	0.5	0-10
Beryllium				
Bismuth				
Boron				
Cadmium	0.900	1.30	44.4 (a)	0-10
Calcium				
Chromium	4.90	5.20	6.1	0-10
Cobalt				
Copper	anr			
Gold				
Iron				
Lead	2.80	0.00	100.0(a)	0-10
Lithium				
Magnesium				
Manganese				
Molybdenum				
Nickel	anr			
Palladium				
Platinum				
Potassium				
Selenium	5.10	0.00	100.0(a)	0-10
Silicon				
Silver	0.600	0.00	100.0(a)	0-10
Sodium				
Sulfur				
Strontium				
Thallium				
Tin				
Titanium				
Tungsten				

SERIAL DILUTION RESULTS SUMMARY

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

QC Batch ID: MP23556
Matrix Type: LEACHATE

Methods: SW846 6010C
Units: ug/l

Prep Date: 09/03/14

Metal	MC33270-1A Original SDL 1:5	%DIF	QC Limits
Vanadium			
Zinc	anr		
Zirconium			

Associated samples MP23556: MC33244-1, MC33244-2, MC33244-3, MC33244-4, MC33244-5, MC33244-6, MC33244-7, MC33244-8, MC33244-9, MC33244-10, MC33244-11

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

QC Batch ID: MP23558
Matrix Type: LEACHATE

Methods: SW846 7470A
Units: mg/l

Prep Date: 09/03/14

Metal	RL	IDL	MDL	MB raw	final
Mercury	0.00020	.0000088	.0001	0.000025	<0.00020

Associated samples MP23558: MC33244-1, MC33244-2, MC33244-3, MC33244-4, MC33244-5, MC33244-6, MC33244-7, MC33244-8, MC33244-9, MC33244-10, MC33244-11

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

QC Batch ID: MP23558 Methods: SW846 7470A
Matrix Type: LEACHATE Units: mg/l

Prep Date: 09/03/14

Metal	MC33270-1A Original	MS	Spikelot HGRWS1	% Rec	QC Limits
Mercury	0.0	0.0031	0.0030	103.3	75-125

Associated samples MP23558: MC33244-1, MC33244-2, MC33244-3, MC33244-4, MC33244-5, MC33244-6, MC33244-7, MC33244-8, MC33244-9, MC33244-10, MC33244-11

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

QC Batch ID: MP23558 Methods: SW846 7470A
Matrix Type: LEACHATE Units: mg/l

Prep Date: 09/03/14

Metal	MC33270-1A Original	MSD	Spikelot HGRWS1	% Rec	MSD RPD	QC Limit
Mercury	0.0	0.0030	0.0030	100.0	3.3	

Associated samples MP23558: MC33244-1, MC33244-2, MC33244-3, MC33244-4, MC33244-5, MC33244-6, MC33244-7, MC33244-8, MC33244-9, MC33244-10, MC33244-11

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

QC Batch ID: MP23558
Matrix Type: LEACHATE
Methods: SW846 7470A
Units: mg/l

Prep Date:			09/03/14					09/03/14		
Metal	JB75106-1A Original	LS	Spikelot HGRWS1	% Rec	QC Limits	MC33191-1A Original	LS	Spikelot HGRWS1	% Rec	QC Limits
Mercury	0.0	0.0032	0.0030	106.7	75-125	0.000041	0.0033	0.0030	108.6	75-125

Associated samples MP23558: MC33244-1, MC33244-2, MC33244-3, MC33244-4, MC33244-5, MC33244-6, MC33244-7, MC33244-8, MC33244-9, MC33244-10, MC33244-11

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

QC Batch ID: MP23558
Matrix Type: LEACHATE

Methods: SW846 7470A
Units: mg/l

Prep Date: 09/03/14 09/03/14

Metal	BSP Result	Spikelot HGRWS1	% Rec	QC Limits	BSD Result	Spikelot HGRWS1	% Rec	BSD RPD	QC Limit
Mercury	0.0032	0.0030	106.7	80-120	0.0032	0.0030	106.7	0.0	

Associated samples MP23558: MC33244-1, MC33244-2, MC33244-3, MC33244-4, MC33244-5, MC33244-6, MC33244-7, MC33244-8, MC33244-9, MC33244-10, MC33244-11

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

New England ACCUTEST LABORATORIES

Metals Analysis

Raw Data

MA17487

Method: Accutest Operator: Admin Date of Analysis: 03 Sep 2014 15:43:20

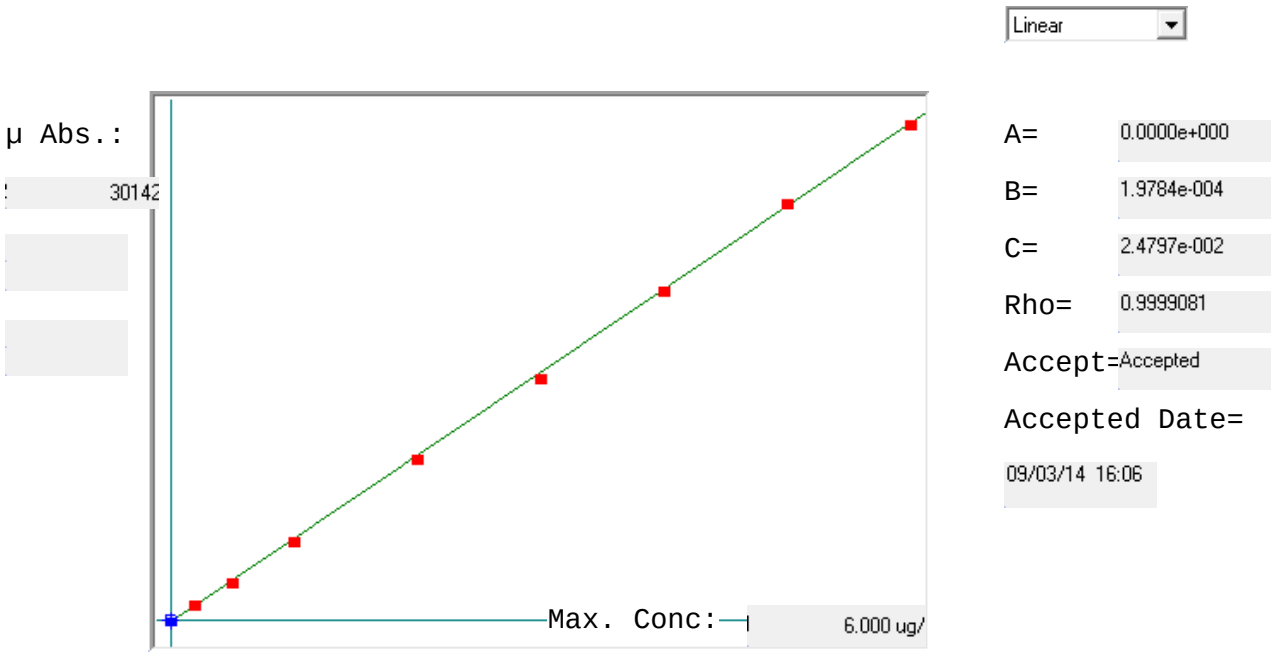
Sample ID	Date	Type	Units	Conc.	µ Abs.	Wt.	Vol.
STDA - 1	03 Sep 2014 15:43:32	Std	ug/l	-	27	1.000	1.000
STDB - 1	03 Sep 2014 15:45:47	Std	ug/l	-	961	1.000	1.000
STDC - 1	03 Sep 2014 15:48:03	Std	ug/l	-	2383	1.000	1.000
STDD - 1	03 Sep 2014 15:50:19	Std	ug/l	-	4863	1.000	1.000
STDE - 1	03 Sep 2014 15:52:38	Std	ug/l	-	9887	1.000	1.000
STDF - 1	03 Sep 2014 15:54:55	Std	ug/l	-	14793	1.000	1.000
STDG - 1	03 Sep 2014 15:57:18	Std	ug/l	-	20075	1.000	1.000
STDH - 1	03 Sep 2014 15:59:46	Std	ug/l	-	25423	1.000	1.000
STDI - 1	03 Sep 2014 16:02:17	Std	ug/l	-	30142	1.000	1.000
ICV - 1	03 Sep 2014 16:06:44	SMPL	ug/l	3.7162	18658	1.000	1.000
ICB - 1	03 Sep 2014 16:09:40	SMPL	ug/l	0.0102	-74	1.000	1.000
CCV - 1	03 Sep 2014 16:11:55	SMPL	ug/l	2.9563	14817	1.000	1.000
CCB - 1	03 Sep 2014 16:15:25	SMPL	ug/l	0.0260	6	1.000	1.000
CRI - 1	03 Sep 2014 16:17:39	SMPL	ug/l	0.2310	1042	1.000	1.000
MP23558-MB1 - 1	03 Sep 2014 16:19:57	SMPL	ug/l	0.0252	2	1.000	1.000
MP23558-B1 - 1	03 Sep 2014 16:22:12	SMPL	ug/l	3.1553	15823	1.000	1.000
MP23558-B2 - 1	03 Sep 2014 16:24:26	SMPL	ug/l	3.2103	16101	1.000	1.000
MP23558-S1 - 1	03 Sep 2014 16:26:54	SMPL	ug/l	3.0605	15344	1.000	1.000
MP23558-S2 - 1	03 Sep 2014 16:29:20	SMPL	ug/l	2.9944	15010	1.000	1.000
MC33270-1A - 1	03 Sep 2014 16:31:52	SMPL	ug/l	-0.0152	-202	1.000	1.000
MP23558-LS1 - 1	03 Sep 2014 16:34:21	SMPL	ug/l	3.1575	15834	1.000	1.000
JB75106-1A - 1	03 Sep 2014 16:36:37	SMPL	ug/l	0.0020	-115	1.000	1.000
MP23558-LS2 - 1	03 Sep 2014 16:39:02	SMPL	ug/l	3.2546	16325	1.000	1.000
CCV - 1	03 Sep 2014 16:41:17	SMPL	ug/l	2.9094	14580	1.000	1.000
CCB - 1	03 Sep 2014 16:43:45	SMPL	ug/l	-0.0173	-213	1.000	1.000
MC33191-1A - 1	03 Sep 2014 16:46:11	SMPL	ug/l	0.0414	84	1.000	1.000
MP23558-LB1 - 1	03 Sep 2014 16:48:26	SMPL	ug/l	0.0246	-1	1.000	1.000
MP23558-LB2 - 1	03 Sep 2014 16:50:40	SMPL	ug/l	0.0323	38	1.000	1.000
CRI - 1	03 Sep 2014 16:52:54	SMPL	ug/l	0.2021	896	1.000	1.000
CCV - 1	03 Sep 2014 16:55:09	SMPL	ug/l	2.4529	12273	1.000	1.000
CCB - 1	03 Sep 2014 16:57:25	SMPL	ug/l	-0.0100	-176	1.000	1.000
MC32861-4R - 1	03 Sep 2014 17:01:24	SMPL	ug/l	0.0381	67	1.000	1.000
MC33121-5R - 1	03 Sep 2014 17:03:39	SMPL	ug/l	0.0604	180	1.000	1.000
MC33244-1 - 1	03 Sep 2014 17:05:55	SMPL	ug/l	0.0335	44	1.000	1.000
MC33244-10 - 1	03 Sep 2014 17:08:09	SMPL	ug/l	0.0333	43	1.000	1.000
MC33244-11 - 1	03 Sep 2014 17:10:24	SMPL	ug/l	0.0529	142	1.000	1.000
MC33244-2 - 1	03 Sep 2014 17:12:38	SMPL	ug/l	0.0396	75	1.000	1.000
MC33244-3 - 1	03 Sep 2014 17:14:53	SMPL	ug/l	0.0349	51	1.000	1.000
MC33244-4 - 1	03 Sep 2014 17:17:07	SMPL	ug/l	0.0305	29	1.000	1.000
MC33244-5 - 1	03 Sep 2014 17:19:22	SMPL	ug/l	0.0379	66	1.000	1.000
MC33244-6 - 1	03 Sep 2014 17:21:36	SMPL	ug/l	0.0315	34	1.000	1.000
CCV - 1	03 Sep 2014 17:23:51	SMPL	ug/l	3.1175	15632	1.000	1.000
CCB - 1	03 Sep 2014 17:26:26	SMPL	ug/l	0.0090	-80	1.000	1.000
MC33244-7 - 1	03 Sep 2014 17:28:43	SMPL	ug/l	0.0303	28	1.000	1.000
MC33244-8 - 1	03 Sep 2014 17:30:58	SMPL	ug/l	0.0434	94	1.000	1.000
MC33244-9 - 1	03 Sep 2014 17:33:14	SMPL	ug/l	0.0325	39	1.000	1.000
MC33270-2A - 1	03 Sep 2014 17:35:29	SMPL	ug/l	0.0814	286	1.000	1.000
MP23557-MB1 - 1	03 Sep 2014 17:37:44	SMPL	ug/l	0.0329	41	1.000	1.000
MP23557-B1 - 1	03 Sep 2014 17:39:59	SMPL	ug/l	3.2115	16107	1.000	1.000
MP23557-S1 - 1	03 Sep 2014 17:42:14	SMPL	ug/l	3.1903	16000	1.000	1.000
MP23557-S2 - 1	03 Sep 2014 17:44:41	SMPL	ug/l	3.2048	16073	1.000	1.000
MC33223-1 - 1	03 Sep 2014 17:47:09	SMPL	ug/l	-0.0231	-242	1.000	1.000
MC33223-2 - 1	03 Sep 2014 17:49:36	SMPL	ug/l	0.0345	49	1.000	1.000
CCV - 1	03 Sep 2014 17:51:51	SMPL	ug/l	3.1476	15784	1.000	1.000
CCB - 1	03 Sep 2014 17:54:06	SMPL	ug/l	-0.0102	-177	1.000	1.000
MC33223-3 - 1	03 Sep 2014 17:56:35	SMPL	ug/l	0.0293	23	1.000	1.000
MC33223-4 - 1	03 Sep 2014 17:58:50	SMPL	ug/l	0.0343	48	1.000	1.000
MC33223-5 - 1	03 Sep 2014 18:01:06	SMPL	ug/l	0.0353	53	1.000	1.000

MA17487

Method: Accutest Operator: Admin Date of Analysis: 03 Sep 2014 15:43:20

Sample ID	Date	Type	Units	Conc.	µ Abs.	Wt.	Vol.
MC33223-6 - 1	03 Sep 2014 18:03:20	SMPL	ug/l	0.0351	52	1.000	1.000
CRI - 1	03 Sep 2014 18:05:35	SMPL	ug/l	0.2363	1069	1.000	1.000
CCV - 1	03 Sep 2014 18:07:50	SMPL	ug/l	3.2675	16390	1.000	1.000
CCB - 1	03 Sep 2014 18:10:06	SMPL	ug/l	-0.0134	-193	1.000	1.000

Accutest



Std ID	Conc.	Calc.	Dev.	Mean	SD or %RSD	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
STDA	0.000	0.030	0.030	27	0.000	27				
STDB	0.200	0.215	0.015	961	0.0 %	961				
STDC	0.500	0.496	-0.004	2383	0.0 %	2383				
STDD	1.000	0.987	-0.013	4863	0.0 %	4863				
STDE	2.000	1.981	-0.019	9887	0.0 %	9887				
STDF	3.000	2.952	-0.048	14793	0.0 %	14793				
STDG	4.000	3.997	-0.003	20075	0.0 %	20075				
STDH	5.000	5.055	0.055	25423	0.0 %	25423				
STDI	6.000	5.988	-0.012	30142	0.0 %	30142				

Zoom In ▶ Zoom Out

Sample Name: STD1 Acquired: 9/4/2014 8:20:26 Type: Cal
Method: Accutest2(v139) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	Au2427	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0001**	**.0000**	**-.0000**	**-.0000**	**.0004**	**-.0003**	**-.0000**	**.0003**	**.0014**
Stddev	.0000	.0001	.0001	.0000	.0000	.0000	.0000	.0001	.0001
%RSD	25.60	218.1	191400.	50.61	3.887	14.98	93.01	20.50	6.823
#1	-.0001	.0001	.0001	-.0000	.0004	-.0003	-.0001	.0003	.0015
#2	-.0001	-.0000	-.0001	-.0000	.0004	-.0004	-.0000	.0002	.0013

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0003**	**-.0002**	**-.0000**	**.0012**	**.0003**	**.0015**	**.0025**	**-.0000**	**.0001**
Stddev	.0000	.0000	.0000	.0001	.0000	.0001	.0007	.0000	.0000
%RSD	8.324	21.87	1425.	7.075	9.282	7.026	29.26	240.9	21.20
#1	.0004	-.0002	.0000	.0012	.0003	.0016	.0031	-.0000	.0001
#2	.0003	-.0001	-.0000	.0013	.0003	.0014	.0020	.0000	.0001

Elem	Mo2020	Na5895	Ni2316	Pb2203	Pd3404	Pt2659	S_1820	Sb2068	Se1960
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0003**	**.0032**	**-.0003**	**-.0005**	**-.0001**	**-.0001**	**.0001**	**-.0006**	**.0003**
Stddev	.0000	.0002	.0000	.0001	.0000	.0000	.0000	.0001	.0001
%RSD	17.68	6.727	1.759	17.69	16.96	1.920	73.86	16.06	25.10
#1	.0003	.0033	-.0003	-.0005	-.0001	-.0001	.0000	-.0005	.0002
#2	.0002	.0030	-.0003	-.0006	-.0001	-.0001	.0001	-.0007	.0003

Elem	Si2124	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	W_2079	Zn2062	Zr3391
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0089**	**-.0000**	**-.0024**	**-.0002**	**-.0002**	**.0001**	**.0017**	**.0003**	**-.0002**
Stddev	.0001	.0000	.0001	.0000	.0000	.0000	.0000	.0001	.0000
%RSD	1.019	184.3	3.531	.8452	7.807	5.996	.9267	41.57	13.39
#1	.0088	.0000	-.0025	-.0002	-.0002	.0001	.0017	.0002	-.0002
#2	.0090	-.0000	-.0024	-.0002	-.0002	.0001	.0017	.0003	-.0002

◀ Zoom In ▶ Zoom Out

Sample Name: STD1 Acquired: 9/4/2014 8:20:26 Type: Cal
Method: Accutest2(v139) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**8557.5**	**4178.2**	**154230.**	**17721.**
Stddev	9.8	3.2	196.	207.
%RSD	.11450	.07737	.12725	1.1657
#1	8564.5	4180.5	154370.	17575.
#2	8550.6	4175.9	154090.	17867.

◀ Zoom In ▶ Zoom Out

Sample Name: STD2 Acquired: 9/4/2014 8:26:06 Type: Cal
Method: Accutest2(v139) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	Au2427	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0647**	**.9355**	**.5242**	**.1106**	**.9683**	**10.58**	**9.416**	**1.106**	**1.001**
Stddev	.0009	.0000	.0001	.0012	.0010	.01	.002	.002	.002
%RSD	1.440	.0006	.0163	1.124	.1075	.0473	.0163	.1789	.1611
#1	.0654	.9356	.5242	.1115	.9676	10.59	9.415	1.105	.9994
#2	.0640	.9355	.5243	.1097	.9691	10.58	9.417	1.108	1.002

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**4.606**	**2.235**	**.3164**	**1.082**	**1.009**	**.5785**	**3.490**	**.0933**	**2.436**
Stddev	.002	.003	.0058	.013	.001	.0010	.002	.0005	.012
%RSD	.0382	.1244	1.840	1.152	.0892	.1740	.0441	.4860	.4764
#1	4.605	2.233	.3205	1.091	1.008	.5792	3.489	.0930	2.428
#2	4.607	2.237	.3123	1.073	1.010	.5778	3.491	.0936	2.445

Elem	Mo2020	Na5895	Ni2316	Pb2203	Pd3404	Pt2659	S_1820	Sb2068	Se1960
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3.962**	**2.685**	**1.801**	**.7079**	**.2331**	**.0337**	**.2720**	**.7920**	**.3683**
Stddev	.013	.002	.002	.0009	.0031	.0005	.0004	.0003	.0006
%RSD	.3387	.0687	.1174	.1286	1.328	1.433	.1385	.0395	.1745
#1	3.952	2.684	1.799	.7072	.2353	.0340	.2718	.7918	.3678
#2	3.971	2.686	1.802	.7085	.2310	.0333	.2723	.7922	.3687

Elem	Si2124	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	W_2079	Zn2062	Zr3391
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.197**	**.8345**	**19.78**	**.6061**	**.2731**	**.5013**	**1.498**	**4.119**	**1.489**
Stddev	.003	.0019	.03	.0089	.0006	.0084	.004	.004	.018
%RSD	.2147	.2245	.1274	1.469	.2299	1.666	.2390	.1049	1.226
#1	1.195	.8332	19.80	.6124	.2726	.5072	1.496	4.116	1.502
#2	1.199	.8358	19.76	.5998	.2735	.4954	1.501	4.122	1.476

◀ Zoom In ▶ Zoom Out

Sample Name: STD2 Acquired: 9/4/2014 8:26:06 Type: Cal
Method: Accutest2(v139) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**7981.5**	**4087.0**	**155190.**	**17348.**
Stddev	9.8	3.4	2866.	23.
%RSD	.12227	.08235	1.8469	.13057
#1	7988.4	4089.4	153170.	17364.
#2	7974.6	4084.6	157220.	17332.

Zoom In Zoom Out

Sample Name: ICV Acquired: 9/4/2014 8:31:41 Type: QC
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	Au2427	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5190**	**15.40**	**3.012**	**3.081**	**3.106**	**3.036**	**2.980**	**3.062**	**17.76**
Stddev	.0005	.10	.005	.001	.004	.024	.019	.007	.11
%RSD	.0945	.6787	.1722	.0424	.1383	.8010	.6244	.2442	.6152
#1	.5186	15.33	3.008	3.080	3.103	3.019	2.966	3.056	17.69
#2	.5193	15.48	3.016	3.082	3.109	3.053	2.993	3.067	17.84
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value									
Range									

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.016**	**2.979**	**3.041**	**3.022**	**17.85**	**15.06**	**2.971**	**17.80**	**3.117**
Stddev	.002	.001	.007	.002	.09	.11	.023	.08	.003
%RSD	.0642	.0311	.2419	.0604	.5214	.7116	.7817	.4542	.0832
#1	3.014	2.978	3.036	3.023	17.79	14.98	2.955	17.75	3.115
#2	3.017	2.979	3.046	3.020	17.92	15.13	2.988	17.86	3.119
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass
Value									
Range									

Elem	Mo2020	Na5895	Ni2316	Pb2203	Pd3404	Pt2659	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.976**	**15.26**	**3.014**	**3.020**	**3.099**	**3.092**	**3.051**	**3.071**	**3.020**
Stddev	.011	.07	.004	.002	.004	.001	.004	.005	.007
%RSD	.3606	.4858	.1292	.0500	.1392	.0240	.1295	.1602	.2228
#1	2.969	15.20	3.012	3.019	3.096	3.092	3.048	3.067	3.015
#2	2.984	15.31	3.017	3.021	3.102	3.093	3.054	3.074	3.025
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ICV Acquired: 9/4/2014 8:31:41 Type: QC
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2124	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	W_2079	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.932**	**3.065**	**3.106**	**3.048**	**3.031**	**3.096**	**2.874**	**2.966**	**3.206**
Stddev	.006	.005	.012	.000	.000	.004	.007	.001	.001
%RSD	.2137	.1668	.3704	.0077	.0064	.1301	.2570	.0269	.0435
#1	2.927	3.062	3.114	3.048	3.031	3.093	2.869	2.966	3.205
#2	2.936	3.069	3.098	3.049	3.031	3.099	2.879	2.967	3.207
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**8002.9**	**4094.6**	**155280.**	**18964.**
Stddev	4.3	6.0	342.	5.
%RSD	.05427	.14690	.22014	.02714
#1	8005.9	4098.9	155520.	18960.
#2	7999.8	4090.4	155030.	18967.

Zoom In Zoom Out

Sample Name: ICB Acquired: 9/4/2014 8:37:11 Type: QC
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	Au2427	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**-.0010**	**-.0004**	**.0022**	**.0053**	**-.0001**	**.0001**	**-.0004**	**.0033**
Stddev	.0000	.0041	.0006	.0003	.0008	.0002	.0000	.0006	.0008
%RSD	1987.	430.7	163.4	14.02	14.26	298.9	1.277	133.4	25.56
#1	-.0000	.0019	-.0008	.0020	.0058	.0001	.0001	-.0008	.0027
#2	.0000	-.0039	.0001	.0025	.0048	-.0002	.0001	-.0000	.0039
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0002**	**-.0000**	**.0005**	**.0015**	**.0046**	**-.0001**	**-.0106**	**.0001**
Stddev	.0000	.0001	.0002	.0001	.0007	.0312	.0001	.0136	.0000
%RSD	12.43	52.77	1096.	18.76	44.77	683.9	151.9	127.9	27.54
#1	.0002	.0001	.0002	.0005	.0020	.0266	.0000	-.0010	.0001
#2	.0002	.0003	-.0002	.0004	.0010	-.0175	-.0001	-.0203	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Mo2020	Na5895	Ni2316	Pb2203	Pd3404	Pt2659	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **.0124**	**-.0057**	**.0001**	**.0006**	**-.0007**	**-.0005**	**.0001**	**.0010**	**-.0007**
Stddev	.0023	.0014	.0001	.0004	.0001	.0006	.0000	.0006	.0012
%RSD	18.56	24.70	51.90	70.02	19.54	127.8	38.92	60.67	169.8
#1	.0140	-.0047	.0001	.0009	-.0008	-.0000	.0001	.0006	-.0016
#2	.0108	-.0067	.0002	.0003	-.0006	-.0009	.0001	.0014	.0001
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.0100								
Low Limit	-.0100								

Zoom In Zoom Out

Sample Name: ICB Acquired: 9/4/2014 8:37:11 Type: QC
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2124	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	W_2079	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0011**	**.0005**	**.0000**	**.0006**	**.0010**	**-.0003**	F **.0203**	**-.0000**	**.0019**
Stddev	.0005	.0001	.0000	.0000	.0009	.0002	.0019	.0001	.0001
%RSD	51.38	10.21	143.3	7.986	85.79	81.82	9.521	354.0	3.577
#1	.0007	.0006	.0000	.0007	.0017	-.0001	.0217	-.0001	.0019
#2	.0014	.0005	-.0000	.0006	.0004	-.0004	.0190	.0000	.0018
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit							.0100		
Low Limit							-.0100		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**8557.3**	**4168.0**	**162790.**	**19103.**
Stddev	11.8	2.6	2609.	56.
%RSD	.13744	.06309	1.6024	.29066
#1	8565.6	4169.9	160950.	19143.
#2	8549.0	4166.2	164640.	19064.

Zoom In Zoom Out

Sample Name: CCV Acquired: 9/4/2014 8:42:50 Type: QC
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	Au2427	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2443**	**9.888**	**1.962**	**2.058**	**1.966**	**1.994**	**2.001**	**2.050**	**10.04**
Stddev	.0013	.176	.002	.011	.004	.032	.034	.005	.17
%RSD	.5263	1.783	.1248	.5266	.1800	1.600	1.674	.2654	1.650
#1	.2434	10.01	1.960	2.050	1.963	2.017	2.025	2.046	10.16
#2	.2452	9.763	1.964	2.065	1.968	1.972	1.978	2.054	9.923
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value									
Range									

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.954**	**1.970**	**1.941**	**2.023**	**9.855**	**9.574**	**2.060**	**9.634**	**2.043**
Stddev	.002	.005	.005	.007	.159	.172	.031	.142	.007
%RSD	.0844	.2740	.2680	.3326	1.610	1.796	1.502	1.471	.3260
#1	1.953	1.966	1.937	2.019	9.967	9.696	2.082	9.735	2.038
#2	1.955	1.974	1.945	2.028	9.742	9.453	2.038	9.534	2.047
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass
Value									
Range									

Elem	Mo2020	Na5895	Ni2316	Pb2203	Pd3404	Pt2659	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.985**	**9.905**	**2.020**	**1.964**	**1.993**	**1.998**	**1.964**	**1.993**	**1.977**
Stddev	.007	.153	.007	.006	.004	.007	.000	.003	.006
%RSD	.3665	1.540	.3515	.3294	.2168	.3763	.0054	.1620	.2890
#1	1.980	10.01	2.015	1.960	1.990	1.993	1.964	1.990	1.973
#2	1.990	9.798	2.025	1.969	1.996	2.004	1.964	1.995	1.981
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 9/4/2014 8:42:50 Type: QC
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2124	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	W_2079	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.049**	**2.065**	**2.133**	**1.997**	**1.981**	**2.046**	**1.975**	**1.958**	**2.026**
Stddev	.003	.004	.036	.003	.008	.006	.005	.001	.006
%RSD	.1661	.2102	1.701	.1594	.4112	.3003	.2495	.0695	.2910
#1	2.046	2.062	2.159	1.995	1.975	2.042	1.971	1.957	2.022
#2	2.051	2.068	2.107	1.999	1.986	2.051	1.978	1.959	2.030
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**8049.5**	**4090.9**	**156380.**	**18752.**
Stddev	22.1	8.4	749.	220.
%RSD	.27444	.20653	.47887	1.1717
#1	8065.1	4096.8	156910.	18597.
#2	8033.9	4084.9	155850.	18907.

Zoom In Zoom Out

Sample Name: CCB Acquired: 9/4/2014 8:48:14 Type: QC
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	Au2427	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0063**	**-.0002**	**.0020**	**.0039**	**.0000**	**-.0000**	**.0000**	**.0047**
Stddev	.0001	.0014	.0001	.0005	.0003	.0001	.0000	.0001	.0023
%RSD	84.68	21.45	44.12	25.08	7.965	582.5	243.0	364.6	47.76
#1	.0002	.0053	-.0001	.0024	.0041	-.0000	-.0000	-.0000	.0031
#2	.0001	.0073	-.0003	.0017	.0036	.0001	.0000	.0001	.0063
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0003**	**.0004**	**.0008**	**.0010**	**-.0153**	**-.0008**	**-.0109**	**.0000**
Stddev	.0000	.0000	.0001	.0001	.0001	.0220	.0003	.0010	.0000
%RSD	24.98	7.551	37.89	13.35	10.01	143.2	44.83	9.102	582.1
#1	.0001	.0003	.0003	.0007	.0009	.0002	-.0005	-.0102	-.0000
#2	.0002	.0003	.0004	.0009	.0011	-.0309	-.0010	-.0116	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Mo2020	Na5895	Ni2316	Pb2203	Pd3404	Pt2659	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0074**	**-.0062**	**.0001**	**.0008**	**-.0002**	**.0001**	**.0001**	**.0003**	**-.0003**
Stddev	.0012	.0015	.0000	.0006	.0001	.0011	.0003	.0012	.0001
%RSD	16.43	23.74	19.01	78.73	51.76	1477.	261.7	477.4	29.07
#1	.0082	-.0051	.0001	.0003	-.0003	-.0007	.0003	.0011	-.0003
#2	.0065	-.0072	.0001	.0012	-.0001	.0009	-.0001	-.0006	-.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: CCB Acquired: 9/4/2014 8:48:14 Type: QC
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2124	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	W_2079	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0013**	**.0002**	**-.0000**	**.0004**	**.0002**	**-.0001**	F **.0137**	**.0000**	**.0016**
Stddev	.0000	.0001	.0000	.0003	.0007	.0001	.0012	.0000	.0000
%RSD	1.003	50.18	104.9	82.99	306.1	110.5	8.389	7235.	2.013
#1	.0013	.0003	-.0000	.0002	.0007	-.0000	.0146	.0000	.0016
#2	.0013	.0001	-.0001	.0006	-.0003	-.0002	.0129	-.0000	.0016
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit							.0100		
Low Limit							-.0100		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**8480.5**	**4142.6**	**160550.**	**19142.**
Stddev	25.0	12.6	1109.	16.
%RSD	.29467	.30501	.69071	.08150
#1	8498.2	4151.6	159760.	19131.
#2	8462.8	4133.7	161330.	19153.

Zoom In Zoom Out

Sample Name: CRIB Acquired: 9/4/2014 8:53:55 Type: QC
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	Au2427	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0051**	**.1995**	**.0112**	**.0534**	**.1017**	**.4966**	**.0040**	**.0539**	**5.064**
Stddev	.0002	.0051	.0002	.0006	.0001	.0009	.0001	.0007	.002
%RSD	3.956	2.534	2.184	1.132	.0609	.1755	1.849	1.248	.0349
#1	.0053	.1960	.0114	.0538	.1017	.4972	.0041	.0534	5.065
#2	.0050	.2031	.0110	.0529	.1018	.4960	.0040	.0544	5.062
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value									
Range									

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0039**	**.0505**	**.0100**	**.0264**	**.1005**	**4.661**	**.5010**	**4.799**	**.0160**
Stddev	.0001	.0001	.0000	.0002	.0016	.003	.0003	.029	.0001
%RSD	1.374	.0995	.3717	.8594	1.561	.0714	.0666	.6005	.5293
#1	.0039	.0506	.0100	.0262	.0994	4.663	.5012	4.778	.0161
#2	.0039	.0505	.0100	.0265	.1016	4.659	.5007	4.819	.0159
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass
Value									
Range									

Elem	Mo2020	Na5895	Ni2316	Pb2203	Pd3404	Pt2659	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1065**	**4.864**	**.0425**	**.0106**	**.0517**	**.0513**	**.0506**	**.0065**	**.0265**
Stddev	.0002	.007	.0003	.0007	.0001	.0032	.0009	.0003	.0016
%RSD	.2027	.1425	.7805	6.890	.1887	6.177	1.767	5.339	6.186
#1	.1063	4.859	.0427	.0101	.0518	.0490	.0512	.0068	.0277
#2	.1066	4.869	.0422	.0111	.0516	.0535	.0500	.0063	.0254
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CRIB Acquired: 9/4/2014 8:53:55 Type: QC
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2124	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	W_2079	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1081**	**.1055**	**.0107**	**.0497**	**.0049**	**.0102**	**.0600**	**.1052**	**.0517**
Stddev	.0009	.0000	.0000	.0000	.0009	.0000	.0001	.0000	.0000
%RSD	.8099	.0232	.1825	.0741	17.78	.1958	.1178	.0214	.0559
#1	.1075	.1055	.0107	.0497	.0055	.0102	.0600	.1052	.0517
#2	.1088	.1055	.0107	.0496	.0043	.0102	.0601	.1052	.0516
Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	None
Value									
Range									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**8193.9**	**4067.4**	**157970.**	**18982.**
Stddev	3.4	1.6	580.	24.
%RSD	.04101	.03930	.36731	.12653
#1	8196.2	4068.6	157560.	18965.
#2	8191.5	4066.3	158380.	18998.

Zoom In Zoom Out

Sample Name: ICSA Acquired: 9/4/2014 9:07:23 Type: QC
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	Au2427	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**505.3**	**-.0013**	**-.0125**	**-.0005**	**.0000**	**.0000**	**.0033**	**477.0**
Stddev	.0005	2.3	.0015	.0002	.0004	.0000	.0000	.0008	2.4
%RSD	689.8	.4589	116.4	1.862	71.72	219.4	14.74	23.13	.5134
#1	-.0003	506.9	-.0002	-.0127	-.0003	.0000	.0000	.0039	478.7
#2	.0004	503.6	-.0023	-.0124	-.0008	-.0000	.0000	.0028	475.2
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0010**	**-.0007**	**.0003**	**-.0001**	**176.4**	**-.1233**	**.0062**	**500.0**	**.0238**
Stddev	.0000	.0001	.0000	.0004	.7	.0222	.0003	.9	.0002
%RSD	4.745	11.81	14.82	517.7	.3801	18.03	4.331	.1769	.6675
#1	-.0010	-.0006	.0003	-.0003	176.8	-.1390	.0061	500.6	.0239
#2	-.0009	-.0007	.0002	.0002	175.9	-.1076	.0064	499.4	.0237
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Mo2020	Na5895	Ni2316	Pb2203	Pd3404	Pt2659	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0022**	**.1102**	**-.0004**	**-.0021**	**-.0238**	**-.0136**	**.0120**	**-.0002**	**.0063**
Stddev	.0001	.0003	.0001	.0011	.0012	.0021	.0005	.0006	.0006
%RSD	5.261	.2915	31.92	51.41	4.847	15.18	4.018	370.3	9.148
#1	.0021	.1104	-.0003	-.0013	-.0247	-.0150	.0123	.0003	.0067
#2	.0023	.1100	-.0005	-.0029	-.0230	-.0121	.0116	-.0006	.0059
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ICSA Acquired: 9/4/2014 9:07:23 Type: QC
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2124	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	W_2079	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0137**	**.0020**	**.0012**	**.0010**	**.0010**	**-.0002**	**.0184**	**.0008**	**.0012**
Stddev	.0002	.0008	.0000	.0000	.0014	.0001	.0012	.0003	.0001
%RSD	1.750	42.47	3.208	3.716	137.0	35.70	6.688	35.60	8.510
#1	.0139	.0014	.0013	.0009	.0020	-.0003	.0193	.0006	.0013
#2	.0135	.0026	.0012	.0010	.0000	-.0002	.0176	.0009	.0012
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6562.8**	**3586.9**	**138440.**	**18281.**
Stddev	17.9	8.9	1111.	37.
%RSD	.27341	.24822	.80220	.20158
#1	6575.5	3593.2	137660.	18255.
#2	6550.1	3580.6	139230.	18307.

Zoom In Zoom Out

Sample Name: ICSAB Acquired: 9/4/2014 9:13:04 Type: QC
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	Au2427	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.9737**	**506.4**	**2.002**	**.5308**	**.9489**	**.4680**	**.4839**	**.5334**	**477.0**
Stddev	.0006	4.6	.003	.0016	.0021	.0027	.0025	.0019	4.4
%RSD	.0656	.9099	.1544	.3051	.2211	.5664	.5268	.3612	.9259
#1	.9742	509.6	2.000	.5296	.9474	.4698	.4857	.5347	480.1
#2	.9733	503.1	2.004	.5319	.9504	.4661	.4821	.5320	473.9
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit									
Low Limit									

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.9827**	**.4644**	**.4279**	**.5378**	**177.5**	**-.1386**	**.5459**	**502.1**	**.5038**
Stddev	.0006	.0003	.0006	.0009	1.0	.0008	.0051	2.6	.0001
%RSD	.0585	.0540	.1404	.1651	.5358	.6034	.9424	.5231	.0250
#1	.9823	.4646	.4283	.5372	178.2	-.1391	.5495	503.9	.5038
#2	.9831	.4643	.4274	.5385	176.9	-.1380	.5422	500.2	.5039
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Mo2020	Na5895	Ni2316	Pb2203	Pd3404	Pt2659	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.9128**	**.1234**	**.9627**	**.9097**	**.5326**	**.4993**	**.4924**	**2.119**	**2.052**
Stddev	.0026	.0003	.0004	.0007	.0009	.0016	.0024	.001	.001
%RSD	.2824	.2512	.0419	.0813	.1671	.3142	.4800	.0541	.0650
#1	.9110	.1236	.9630	.9102	.5320	.4981	.4907	2.120	2.053
#2	.9146	.1231	.9624	.9091	.5333	.5004	.4941	2.118	2.051
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ICSAB Acquired: 9/4/2014 9:13:04 Type: QC
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2124	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	W_2079	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.125**	**.9673**	**1.066**	**.4569**	**1.770**	**.4883**	**1.802**	**.8510**	**.3440**
Stddev	.003	.0004	.005	.0001	.005	.0001	.004	.0002	.0065
%RSD	.1191	.0381	.4951	.0269	.2782	.0161	.2497	.0179	1.898
#1	2.127	.9670	1.070	.4569	1.773	.4883	1.799	.8509	.3394
#2	2.123	.9675	1.062	.4570	1.766	.4884	1.805	.8511	.3486
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None
High Limit									
Low Limit									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6544.4**	**3569.6**	**138800.**	**18218.**
Stddev	5.1	2.4	42.	105.
%RSD	.07838	.06678	.03043	.57455
#1	6540.8	3567.9	138830.	18144.
#2	6548.0	3571.3	138770.	18292.

Zoom In Zoom Out

Sample Name: MP23556-B1 Acquired: 9/4/2014 9:18:40 Type: Unk
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	Au2427	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1755**	**1.884**	**.5248**	**-.0005**	**.9389**	**1.802**	**.4860**	**.0005**	**24.50**
Stddev	.0014	.007	.0009	.0003	.0009	.006	.0017	.0006	.07
%RSD	.7841	.3500	.1689	60.96	.1006	.3596	.3396	106.9	.2918
#1	.1746	1.879	.5254	-.0003	.9382	1.797	.4848	.0001	24.45
#2	.1765	1.888	.5241	-.0007	.9395	1.806	.4871	.0009	24.55

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5031**	**.4778**	**.4403**	**.5062**	**1.855**	**25.88**	**-.0528**	**22.49**	**.4854**
Stddev	.0002	.0015	.0022	.0033	.009	.16	.0016	.05	.0023
%RSD	.0380	.3115	.4950	.6604	.5081	.6347	3.014	.2415	.4757
#1	.5030	.4788	.4388	.5038	1.849	25.76	-.0539	22.46	.4838
#2	.5032	.4767	.4418	.5086	1.862	25.99	-.0516	22.53	.4870

Elem	Mo2020	Na5895	Ni2316	Pb2203	Pd3404	Pt2659	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4709**	F **1356.**	**.5160**	**.9551**	**-.0032**	**-.0021**	**.0141**	**.5146**	**.5749**
Stddev	.0007	18.	.0013	.0043	.0002	.0009	.0001	.0014	.0020
%RSD	.1535	1.304	.2531	.4500	6.217	39.82	.7246	.2626	.3485
#1	.4714	1368.	.5169	.9581	-.0034	-.0015	.0142	.5136	.5734
#2	.4704	1343.	.5151	.9521	-.0031	-.0027	.0141	.5156	.5763

Elem	Si2124	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	W_2079	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0763**	**.9760**	**.5168**	**.4649**	**.4397**	**.5038**	**.0140**	**.4590**	**.1100**
Stddev	.0003	.0016	.0024	.0016	.0005	.0015	.0026	.0023	.0137
%RSD	.4357	.1609	.4732	.3520	.1033	.2895	18.57	.4946	12.49
#1	.0765	.9771	.5150	.4638	.4400	.5028	.0159	.4606	.1197
#2	.0760	.9749	.5185	.4661	.4394	.5049	.0122	.4574	.1003

Zoom In Zoom Out

Sample Name: MP23556-B1 Acquired: 9/4/2014 9:18:40 Type: Unk
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6306.3**	**3530.5**	**137190.**	**18600.**
Stddev	5.5	2.2	530.	25.
%RSD	.08713	.06178	.38665	.13444
#1	6302.4	3528.9	137560.	18618.
#2	6310.2	3532.0	136810.	18583.

Zoom In Zoom Out

Sample Name: MP23556-MB1 Acquired: 9/4/2014 9:24:14 Type: Unk
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	Au2427	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0079**	**.0003**	**.0005**	**.0020**	**.0000**	**-.0001**	**-.0001**	**.0302**
Stddev	.0001	.0002	.0006	.0003	.0001	.0000	.0000	.0004	.0005
%RSD	35.19	3.145	210.2	73.70	5.990	993.7	39.64	525.2	1.525
#1	.0002	.0081	.0007	.0002	.0019	-.0000	-.0001	.0002	.0298
#2	.0001	.0078	-.0001	.0007	.0021	.0000	-.0000	-.0004	.0305

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0001**	**.0002**	**.0017**	**.0023**	**.0151**	**.0020**	**-.0080**	**.0000**
Stddev	.0000	.0001	.0001	.0004	.0008	.0133	.0003	.0020	.0000
%RSD	17.22	118.6	26.18	21.57	33.09	88.09	15.12	24.57	53.43
#1	.0002	.0000	.0002	.0019	.0029	.0246	.0022	-.0066	.0000
#2	.0001	.0001	.0003	.0014	.0018	.0057	.0018	-.0094	.0000

Elem	Mo2020	Na5895	Ni2316	Pb2203	Pd3404	Pt2659	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0020**	**.1961**	**.0000**	**.0002**	**.0001**	**-.0022**	**.0008**	**.0005**	**-.0000**
Stddev	.0003	.0119	.0001	.0001	.0004	.0014	.0009	.0007	.0005
%RSD	17.40	6.046	238.6	48.84	410.8	64.31	117.7	127.2	1420.
#1	.0022	.2044	.0001	.0003	.0004	-.0031	.0015	.0010	.0003
#2	.0017	.1877	-.0000	.0002	-.0002	-.0012	.0001	.0001	-.0004

Elem	Si2124	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	W_2079	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0440**	**-.0001**	**-.0000**	**.0004**	**-.0004**	**-.0003**	**.0091**	**.0011**	**.0006**
Stddev	.0005	.0000	.0000	.0000	.0005	.0000	.0007	.0000	.0000
%RSD	1.029	20.08	66.62	11.69	128.0	4.513	7.689	1.812	6.961
#1	.0443	-.0001	-.0000	.0004	-.0000	-.0003	.0096	.0011	.0006
#2	.0436	-.0000	-.0000	.0005	-.0008	-.0003	.0086	.0011	.0006

Zoom In Zoom Out

Sample Name: MP23556-MB1 Acquired: 9/4/2014 9:24:14 Type: Unk
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**8248.8**	**4035.5**	**161090.**	**19405.**
Stddev	11.7	3.4	101.	6.
%RSD	.14196	.08373	.06250	.03121
#1	8257.0	4037.9	161160.	19409.
#2	8240.5	4033.1	161020.	19401.

Zoom In Zoom Out

Sample Name: MP23556-S1 Acquired: 9/4/2014 9:29:55 Type: Unk
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	Au2427	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1843**	**2.095**	**.5746**	**-.0097**	**1.899**	**2.352**	**.5102**	**.0026**	**218.6**
Stddev	.0006	.002	.0003	.0011	.004	.000	.0008	.0000	.9
%RSD	.3164	.1019	.0551	11.41	.2329	.0108	.1622	.8633	.4309
#1	.1847	2.096	.5744	-.0105	1.896	2.352	.5108	.0026	219.3
#2	.1838	2.093	.5749	-.0089	1.902	2.352	.5096	.0026	218.0

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5302**	**.5018**	**.4515**	**.5412**	**84.93**	**29.90**	**-.0350**	**46.98**	**1.740**
Stddev	.0012	.0010	.0024	.0025	.33	.02	.0020	.26	.009
%RSD	.2262	.1924	.5245	.4533	.3929	.0635	5.644	.5532	.4866
#1	.5294	.5011	.4498	.5395	85.17	29.92	-.0364	47.17	1.734
#2	.5311	.5025	.4532	.5430	84.70	29.89	-.0336	46.80	1.746

Elem	Mo2020	Na5895	Ni2316	Pb2203	Pd3404	Pt2659	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4922**	**F 1150.**	**.5576**	**.9889**	**-.0128**	**-.0087**	**1.687**	**.5462**	**.5911**
Stddev	.0014	14.	.0003	.0001	.0002	.0003	.005	.0018	.0008
%RSD	.2930	1.197	.0472	.0078	1.567	3.267	.3253	.3233	.1432
#1	.4912	1159.	.5574	.9890	-.0126	-.0089	1.691	.5474	.5905
#2	.4933	1140.	.5578	.9889	-.0129	-.0085	1.683	.5449	.5917

Elem	Si2124	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	W_2079	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**6.562**	**1.021**	**.9946**	**.4895**	**.4523**	**.5317**	**.0033**	**.7171**	**.0270**
Stddev	.005	.001	.0011	.0031	.0003	.0031	.0001	.0010	.0018
%RSD	.0809	.0516	.1155	.6274	.0720	.5910	4.054	.1331	6.826
#1	6.559	1.020	.9954	.4873	.4521	.5295	.0034	.7164	.0284
#2	6.566	1.021	.9938	.4916	.4526	.5339	.0032	.7178	.0257

Zoom In Zoom Out

Sample Name: MP23556-S1 Acquired: 9/4/2014 9:29:55 Type: Unk
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6208.0**	**3441.6**	**136760.**	**18760.**
Stddev	7.9	3.4	466.	151.
%RSD	.12648	.09970	.34099	.80474
#1	6213.5	3444.1	137090.	18653.
#2	6202.4	3439.2	136430.	18867.

Zoom In Zoom Out

Sample Name: MP23556-S2 Acquired: 9/4/2014 9:35:26 Type: Unk
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	Au2427	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1859**	**2.116**	**.5811**	**-.0107**	**1.928**	**2.387**	**.5139**	**.0016**	**224.2**
Stddev	.0013	.004	.0050	.0002	.010	.006	.0026	.0006	1.7
%RSD	.7004	.1706	.8547	1.954	.5317	.2637	.5050	38.67	.7606
#1	.1869	2.113	.5776	-.0108	1.921	2.391	.5158	.0021	225.4
#2	.1850	2.118	.5846	-.0105	1.935	2.382	.5121	.0012	223.0

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5347**	**.5027**	**.4553**	**.5452**	**87.16**	**30.29**	**-.0322**	**48.09**	**1.776**
Stddev	.0026	.0022	.0078	.0069	.55	.17	.0020	.46	.025
%RSD	.4943	.4357	1.705	1.271	.6354	.5488	6.338	.9546	1.427
#1	.5328	.5012	.4608	.5501	87.55	30.41	-.0337	48.41	1.794
#2	.5365	.5043	.4498	.5403	86.77	30.18	-.0308	47.76	1.758

Elem	Mo2020	Na5895	Ni2316	Pb2203	Pd3404	Pt2659	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4970**	F **1178.**	**.5574**	**.9874**	**-.0136**	**-.0079**	**1.722**	**.5502**	**.6026**
Stddev	.0030	15.	.0013	.0003	.0004	.0003	.011	.0040	.0033
%RSD	.5960	1.289	.2325	.0271	2.780	3.406	.6489	.7188	.5502
#1	.4949	1189.	.5564	.9872	-.0138	-.0077	1.714	.5474	.6003
#2	.4991	1167.	.5583	.9876	-.0133	-.0081	1.729	.5530	.6049

Elem	Si2124	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	W_2079	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**6.735**	**1.022**	**1.011**	**.4951**	**.4525**	**.5360**	**.0023**	**.7223**	**.0110**
Stddev	.032	.002	.002	.0069	.0018	.0085	.0001	.0026	.0006
%RSD	.4691	.2090	.2094	1.389	.4008	1.577	2.343	.3619	5.540
#1	6.712	1.021	1.012	.5000	.4512	.5420	.0023	.7204	.0114
#2	6.757	1.024	1.009	.4902	.4538	.5300	.0024	.7241	.0106

Zoom In Zoom Out

Sample Name: MP23556-S2 Acquired: 9/4/2014 9:35:26 Type: Unk
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6187.6**	**3414.5**	**135590.**	**18574.**
Stddev	13.7	11.4	1478.	164.
%RSD	.22108	.33292	1.0901	.88301
#1	6197.3	3422.5	134540.	18458.
#2	6177.9	3406.5	136630.	18690.

Zoom In Zoom Out

Sample Name: MC33270-1A Acquired: 9/4/2014 9:40:58 Type: Unk
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	Au2427	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0006**	**.0420**	**.0263**	**-.0076**	**.7967**	**.4013**	**.0000**	**.0018**	**193.3**
Stddev	.0001	.0048	.0007	.0006	.0019	.0007	.0001	.0004	.0
%RSD	16.19	11.47	2.726	7.670	.2438	.1674	155.8	19.50	.0225
#1	.0005	.0454	.0268	-.0072	.7953	.4018	-.0000	.0016	193.4
#2	.0007	.0386	.0258	-.0080	.7981	.4009	.0001	.0021	193.3

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0009**	**.0081**	**.0049**	**.0026**	**83.27**	**2.798**	**-.0299**	**23.64**	**1.266**
Stddev	.0001	.0000	.0001	.0000	.01	.018	.0002	.08	.003
%RSD	5.967	.5997	2.507	.9549	.0153	.6566	.6589	.3470	.2179
#1	.0008	.0081	.0050	.0026	83.26	2.785	-.0301	23.69	1.264
#2	.0009	.0081	.0048	.0026	83.28	2.811	-.0298	23.58	1.268

Elem	Mo2020	Na5895	Ni2316	Pb2203	Pd3404	Pt2659	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0106**	F **1109.**	**.0324**	**.0028**	**-.0110**	**-.0081**	**1.733**	**.0007**	**.0051**
Stddev	.0001	18.	.0000	.0005	.0002	.0024	.003	.0001	.0003
%RSD	.5447	1.578	.1386	17.02	1.379	29.20	.1955	16.57	4.921
#1	.0106	1097.	.0324	.0031	-.0111	-.0064	1.731	.0006	.0053
#2	.0107	1122.	.0325	.0025	-.0109	-.0098	1.736	.0008	.0050

Elem	Si2124	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	W_2079	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**6.041**	**.0053**	**.4413**	**.0015**	**.0005**	**.0013**	**.0045**	**.2316**	**.0010**
Stddev	.006	.0001	.0004	.0000	.0004	.0001	.0002	.0001	.0001
%RSD	.1033	2.553	.0995	.7959	95.32	4.052	4.405	.0258	8.183
#1	6.037	.0052	.4416	.0015	.0001	.0014	.0043	.2317	.0010
#2	6.045	.0054	.4410	.0015	.0008	.0013	.0046	.2316	.0009

Zoom In Zoom Out

Sample Name: MC33270-1A Acquired: 9/4/2014 9:40:58 Type: Unk
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6276.6**	**3446.0**	**135650.**	**18599.**
Stddev	7.6	2.1	115.	7.
%RSD	.12055	.06107	.08446	.04012
#1	6271.2	3444.5	135740.	18605.
#2	6281.9	3447.5	135570.	18594.

Zoom In Zoom Out

Sample Name: MP23556-SD1 Acquired: 9/4/2014 9:46:38 Type: Unk
Method: Accutest2(v139) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	Au2427	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005**	**.0309**	**.0232**	**-.0078**	**.8243**	**.4033**	**.0001**	**.0014**	**197.2**
Stddev	.0005	.0122	.0026	.0016	.0011	.0017	.0001	.0027	.2
%RSD	88.65	39.64	11.08	20.52	.1316	.4180	128.3	191.7	.1203
#1	.0002	.0222	.0214	-.0090	.8251	.4021	.0002	-.0005	197.4
#2	.0008	.0395	.0251	-.0067	.8236	.4045	.0000	.0033	197.0

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0013**	**.0068**	**.0052**	**.0080**	**86.32**	**2.723**	**-.0202**	**24.43**	**1.308**
Stddev	.0002	.0000	.0002	.0002	.09	.014	.0018	.14	.001
%RSD	13.42	.7266	4.131	2.547	.1035	.5106	8.974	.5543	.0710
#1	.0012	.0068	.0053	.0079	86.38	2.733	-.0189	24.52	1.308
#2	.0014	.0068	.0050	.0081	86.25	2.713	-.0215	24.33	1.307

Elem	Mo2020	Na5895	Ni2316	Pb2203	Pd3404	Pt2659	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0135**	**1183.**	**.0315**	**.0038**	**-.0107**	**-.0088**	**1.676**	**.0002**	**.0067**
Stddev	.0001	7.	.0017	.0011	.0009	.0001	.007	.0018	.0048
%RSD	.9953	.6092	5.293	29.51	8.435	1.363	.3934	896.1	72.15
#1	.0136	1178.	.0303	.0045	-.0113	-.0089	1.672	.0015	.0101
#2	.0134	1188.	.0326	.0030	-.0100	-.0087	1.681	-.0011	.0033

Elem	Si2124	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	W_2079	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.853**	**.0054**	**.4403**	**.0047**	**.0039**	**.0001**	**.0119**	**.2444**	**.0015**
Stddev	.034	.0007	.0001	.0001	.0043	.0008	.0004	.0014	.0007
%RSD	.5733	13.61	.0127	2.228	108.5	1025.	3.145	.5546	46.21
#1	5.829	.0049	.4402	.0048	.0070	.0006	.0122	.2435	.0010
#2	5.876	.0059	.4403	.0046	.0009	-.0005	.0117	.2454	.0020

Zoom In Zoom Out

Sample Name: MP23556-SD1 Acquired: 9/4/2014 9:46:38 Type: Unk
Method: Accutest2(v139) Mode: CONC Corr. Factor: 5.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**7178.5**	**3798.9**	**148370.**	**18982.**
Stddev	6.5	8.4	403.	30.
%RSD	.08990	.22191	.27146	.15634
#1	7183.1	3804.9	148080.	18961.
#2	7173.9	3793.0	148650.	19003.

Zoom In Zoom Out

Sample Name: MP23556-LB1 Acquired: 9/4/2014 9:52:20 Type: Unk
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	Au2427	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**-.0050**	**-.0030**	**-.0002**	**.0024**	**.0019**	**-.0000**	**.0003**	**.0352**
Stddev	.0000	.0032	.0003	.0003	.0003	.0001	.0000	.0007	.0016
%RSD	30.22	63.00	8.732	144.4	10.55	4.266	289.2	234.5	4.666
#1	.0001	-.0072	-.0032	-.0004	.0026	.0019	.0000	.0008	.0363
#2	.0001	-.0028	-.0028	.0000	.0022	.0020	-.0000	-.0002	.0340

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**-.0002**	**.0003**	**.0019**	**.0067**	**.1869**	**-.0438**	**-.0018**	**.0002**
Stddev	.0001	.0001	.0002	.0001	.0003	.0600	.0009	.0130	.0000
%RSD	23.18	39.48	65.67	6.310	3.868	32.10	1.948	708.3	3.967
#1	.0002	-.0002	.0004	.0018	.0069	.1445	-.0444	-.0110	.0002
#2	.0003	-.0001	.0002	.0019	.0065	.2294	-.0432	.0074	.0002

Elem	Mo2020	Na5895	Ni2316	Pb2203	Pd3404	Pt2659	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0100**	F **1309.**	**.0034**	**.0001**	**-.0010**	**-.0035**	**.0127**	**.0004**	**.0057**
Stddev	.0000	1.	.0002	.0011	.0005	.0010	.0003	.0002	.0001
%RSD	.2542	.0720	4.511	742.3	43.62	29.87	2.155	44.49	1.981
#1	.0099	1309.	.0035	-.0006	-.0007	-.0028	.0125	.0002	.0056
#2	.0100	1310.	.0033	.0009	-.0014	-.0042	.0129	.0005	.0058

Elem	Si2124	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	W_2079	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0677**	**.0025**	**.0005**	**.0004**	**.0011**	**.0001**	**.0040**	**-.0021**	**.0003**
Stddev	.0002	.0002	.0000	.0002	.0003	.0003	.0003	.0000	.0000
%RSD	.3456	6.749	6.027	55.67	26.03	411.4	7.421	1.882	5.587
#1	.0676	.0024	.0005	.0006	.0009	.0003	.0042	-.0021	.0003
#2	.0679	.0026	.0006	.0002	.0013	-.0001	.0038	-.0021	.0003

Zoom In Zoom Out

Sample Name: MP23556-LB1 Acquired: 9/4/2014 9:52:20 Type: Unk
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6371.2**	**3491.3**	**136060.**	**18927.**
Stddev	1.8	2.0	93.	94.
%RSD	.02864	.05669	.06856	.49595
#1	6372.5	3492.7	135990.	18861.
#2	6369.9	3489.9	136120.	18993.

Zoom In Zoom Out

Sample Name: CCV Acquired: 9/4/2014 9:58:07 Type: QC
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	Au2427	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2355**	**9.590**	**1.932**	**2.067**	**1.945**	**1.943**	**1.958**	**2.111**	**9.910**
Stddev	.0006	.015	.005	.003	.001	.002	.003	.003	.006
%RSD	.2622	.1575	.2481	.1383	.0503	.1253	.1592	.1314	.0636
#1	.2359	9.579	1.928	2.065	1.946	1.941	1.956	2.113	9.914
#2	.2350	9.601	1.935	2.069	1.944	1.944	1.960	2.109	9.905
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value									
Range									

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.923**	**1.942**	**1.859**	**2.051**	**9.476**	**9.244**	**2.082**	**9.259**	**2.005**
Stddev	.003	.001	.005	.002	.002	.033	.003	.015	.005
%RSD	.1290	.0365	.2855	.1188	.0226	.3583	.1491	.1602	.2578
#1	1.922	1.941	1.855	2.049	9.474	9.221	2.079	9.270	2.002
#2	1.925	1.942	1.863	2.053	9.477	9.267	2.084	9.249	2.009
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass
Value									
Range									

Elem	Mo2020	Na5895	Ni2316	Pb2203	Pd3404	Pt2659	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.969**	**9.803**	**2.030**	**1.938**	**1.992**	**1.972**	**1.923**	**2.016**	**1.972**
Stddev	.006	.012	.001	.002	.005	.001	.002	.003	.003
%RSD	.3123	.1229	.0696	.0984	.2518	.0646	.1128	.1245	.1515
#1	1.964	9.794	2.029	1.936	1.989	1.973	1.922	2.018	1.974
#2	1.973	9.811	2.031	1.939	1.996	1.971	1.925	2.014	1.970
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 9/4/2014 9:58:07 Type: QC
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2124	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	W_2079	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.091**	**2.088**	**2.140**	**1.957**	**1.934**	**2.057**	**1.925**	**1.882**	**1.943**
Stddev	.002	.003	.002	.006	.005	.007	.005	.004	.010
%RSD	.1024	.1380	.0720	.3150	.2588	.3234	.2650	.1941	.5091
#1	2.089	2.086	2.139	1.953	1.931	2.052	1.921	1.879	1.936
#2	2.092	2.090	2.141	1.962	1.938	2.062	1.928	1.885	1.950
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**7896.3**	**4001.9**	**157540.**	**19501.**
Stddev	1.3	.1	378.	.
%RSD	.01676	.00145	.24010	.00143
#1	7895.4	4001.9	157810.	19501.
#2	7897.3	4002.0	157280.	19501.

Zoom In Zoom Out

Sample Name: CCB Acquired: 9/4/2014 10:03:32 Type: QC
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	Au2427	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**.0025**	**-.0001**	**.0018**	**.0024**	**-.0001**	**.0000**	**.0002**	**.0091**
Stddev	.0002	.0010	.0005	.0004	.0004	.0002	.0000	.0014	.0004
%RSD	57.31	41.94	435.6	22.40	17.37	196.8	421.3	669.9	3.986
#1	.0004	.0017	.0002	.0016	.0021	.0000	.0000	.0012	.0088
#2	.0002	.0032	-.0005	.0021	.0027	-.0002	-.0000	-.0008	.0093
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**.0003**	**.0002**	**.0011**	**.0015**	**.0120**	**.0007**	**-.0013**	**.0001**
Stddev	.0002	.0001	.0001	.0001	.0000	.0097	.0006	.0017	.0000
%RSD	60.42	21.60	38.00	9.830	.2779	80.75	81.45	130.5	59.22
#1	.0001	.0002	.0001	.0012	.0016	.0051	.0012	-.0026	.0001
#2	.0004	.0003	.0002	.0011	.0015	.0189	.0003	-.0001	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Mo2020	Na5895	Ni2316	Pb2203	Pd3404	Pt2659	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0062**	**.1778**	**.0001**	**.0008**	**.0004**	**-.0016**	**.0001**	**.0002**	**.0009**
Stddev	.0013	.0023	.0001	.0003	.0007	.0003	.0008	.0010	.0001
%RSD	20.32	1.275	95.53	40.55	162.2	15.61	627.8	503.7	6.739
#1	.0071	.1794	.0000	.0010	-.0001	-.0015	.0007	-.0005	.0009
#2	.0053	.1762	.0002	.0005	.0009	-.0018	-.0004	.0009	.0008
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: CCB Acquired: 9/4/2014 10:03:32 Type: QC
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2124	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	W_2079	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0019**	**.0009**	**-.0000**	**.0004**	**.0009**	**-.0001**	**.0097**	**.0002**	**.0016**
Stddev	.0011	.0000	.0000	.0001	.0002	.0000	.0012	.0002	.0001
%RSD	60.13	5.431	20.32	33.68	17.22	39.34	12.89	84.72	4.692
#1	.0011	.0009	-.0000	.0003	.0010	-.0000	.0105	.0001	.0016
#2	.0026	.0008	-.0000	.0005	.0008	-.0001	.0088	.0003	.0015
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**8342.7**	**4062.7**	**160060.**	**19378.**
Stddev	16.7	8.9	123.	22.
%RSD	.19982	.21976	.07689	.11591
#1	8330.9	4056.4	160140.	19362.
#2	8354.5	4069.1	159970.	19394.

Zoom In Zoom Out

Sample Name: MP23556-LS1 Acquired: 9/4/2014 10:10:25 Type: Unk
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	Au2427	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1880**	**5.131**	**.5597**	**-.0016**	**1.451**	**2.482**	**.5148**	**.0005**	**63.84**
Stddev	.0001	.006	.0036	.0006	.006	.002	.0014	.0002	.14
%RSD	.0683	.1130	.6495	40.66	.3830	.0589	.2680	28.22	.2209
#1	.1879	5.135	.5571	-.0020	1.447	2.481	.5158	.0006	63.94
#2	.1881	5.127	.5623	-.0011	1.455	2.483	.5139	.0004	63.74

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5444**	**.5116**	**.4800**	**.5490**	**4.103**	**30.66**	**-.0410**	**28.46**	**.6773**
Stddev	.0009	.0012	.0015	.0014	.013	.02	.0031	.14	.0022
%RSD	.1572	.2268	.3132	.2608	.3245	.0569	7.630	.4913	.3210
#1	.5438	.5107	.4789	.5480	4.113	30.64	-.0432	28.56	.6757
#2	.5450	.5124	.4811	.5500	4.094	30.67	-.0388	28.36	.6788

Elem	Mo2020	Na5895	Ni2316	Pb2203	Pd3404	Pt2659	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5012**	F **1227.**	**.5446**	**1.238**	**-.0032**	**-.0015**	**.7323**	**.5521**	**.6019**
Stddev	.0016	26.	.0003	.001	.0010	.0004	.0032	.0005	.0033
%RSD	.3146	2.108	.0611	.0569	32.53	25.12	.4383	.0919	.5402
#1	.5001	1245.	.5444	1.237	-.0039	-.0018	.7300	.5518	.5996
#2	.5023	1208.	.5449	1.238	-.0025	-.0012	.7345	.5525	.6041

Elem	Si2124	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	W_2079	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.250**	**1.022**	**.6370**	**.5596**	**.4710**	**.5435**	**-.0006**	**1.100**	**.0629**
Stddev	.016	.001	.0004	.0019	.0001	.0023	.0002	.002	.0057
%RSD	.2969	.1316	.0631	.3371	.0142	.4168	27.69	.2049	9.132
#1	5.239	1.023	.6373	.5582	.4710	.5419	-.0005	1.101	.0670
#2	5.261	1.021	.6367	.5609	.4711	.5452	-.0007	1.098	.0588

Zoom In Zoom Out

Sample Name: MP23556-LS1 Acquired: 9/4/2014 10:10:25 Type: Unk
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6309.5**	**3530.5**	**138660.**	**19193.**
Stddev	1.6	4.7	378.	100.
%RSD	.02549	.13370	.27273	.52240
#1	6310.7	3533.8	138930.	19122.
#2	6308.4	3527.1	138390.	19264.

Zoom In Zoom Out

Sample Name: JB75106-1A Acquired: 9/4/2014 10:15:58 Type: Unk
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	Au2427	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**3.237**	**.0007**	**-.0004**	**.4958**	**.5469**	**.0002**	**.0010**	**39.07**
Stddev	.0001	.089	.0002	.0006	.0001	.0122	.0000	.0003	.95
%RSD	340.0	2.736	32.60	131.3	.0240	2.233	8.888	27.54	2.434
#1	-.0000	3.300	.0005	-.0000	.4959	.5556	.0002	.0012	39.74
#2	.0001	3.174	.0009	-.0008	.4958	.5383	.0002	.0008	38.40

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0024**	**.0015**	**.0061**	**.0102**	**2.612**	**3.073**	**-.0395**	**4.933**	**.1625**
Stddev	.0001	.0003	.0003	.0004	.072	.017	.0053	.181	.0012
%RSD	4.690	18.98	4.767	3.724	2.757	.5440	13.44	3.664	.7526
#1	.0023	.0017	.0063	.0099	2.663	3.085	-.0433	5.061	.1634
#2	.0025	.0013	.0059	.0105	2.561	3.061	-.0358	4.805	.1616

Elem	Mo2020	Na5895	Ni2316	Pb2203	Pd3404	Pt2659	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0107**	F **1190.**	**.0051**	**.2253**	**-.0009**	**-.0060**	**.8194**	**.0005**	**.0059**
Stddev	.0008	73.	.0000	.0015	.0009	.0015	.0042	.0003	.0007
%RSD	7.257	6.098	.6475	.6872	98.68	25.11	.5165	67.47	12.04
#1	.0113	1241.	.0050	.2242	-.0016	-.0050	.8164	.0007	.0054
#2	.0102	1138.	.0051	.2264	-.0003	-.0071	.8224	.0003	.0064

Elem	Si2124	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	W_2079	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.385**	**.0025**	**.0946**	**.0822**	**.0007**	**.0063**	**.0005**	**.6384**	**.0040**
Stddev	.017	.0003	.0019	.0007	.0004	.0003	.0008	.0014	.0000
%RSD	.3097	12.71	2.041	.7999	59.39	4.551	150.8	.2131	.7259
#1	5.373	.0028	.0959	.0826	.0011	.0065	.0011	.6394	.0039
#2	5.397	.0023	.0932	.0817	.0004	.0061	-.0000	.6374	.0040

Zoom In Zoom Out

Sample Name: JB75106-1A Acquired: 9/4/2014 10:15:58 Type: Unk
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6421.8**	**3565.3**	**139360.**	**19282.**
Stddev	4.5	6.2	669.	503.
%RSD	.06986	.17456	.48031	2.6061
#1	6425.0	3569.7	138890.	18927.
#2	6418.7	3560.9	139830.	19638.

Zoom In Zoom Out

Sample Name: MC33270-2A Acquired: 9/4/2014 10:21:39 Type: Unk
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	Au2427	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005**	**.6170**	**.0045**	**-.0013**	**1.287**	**.3246**	**.0002**	**.0013**	**149.5**
Stddev	.0001	.0089	.0008	.0003	.008	.0003	.0001	.0009	.1
%RSD	15.79	1.439	17.48	23.01	.6362	.1008	34.48	71.13	.0937
#1	.0004	.6108	.0050	-.0011	1.281	.3244	.0002	.0007	149.4
#2	.0005	.6233	.0039	-.0015	1.293	.3249	.0001	.0020	149.6

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0056**	**.0043**	**.0085**	**.1254**	**1.071**	**15.71**	**-.0220**	**9.523**	**.3414**
Stddev	.0000	.0001	.0003	.0002	.002	.04	.0000	.049	.0009
%RSD	.7843	1.705	3.692	.1966	.2200	.2310	.1977	.5098	.2722
#1	.0056	.0043	.0087	.1252	1.073	15.68	-.0220	9.557	.3421
#2	.0056	.0042	.0083	.1255	1.069	15.74	-.0221	9.488	.3408

Elem	Mo2020	Na5895	Ni2316	Pb2203	Pd3404	Pt2659	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0094**	F **1074.**	**.0165**	**.0189**	**-.0003**	**-.0076**	**5.466**	**.0016**	**.0051**
Stddev	.0001	10.	.0001	.0012	.0001	.0032	.007	.0005	.0005
%RSD	1.118	.9280	.5416	6.269	26.81	41.56	.1323	31.05	9.954
#1	.0094	1067.	.0166	.0181	-.0002	-.0054	5.461	.0012	.0055
#2	.0095	1081.	.0164	.0197	-.0003	-.0098	5.471	.0019	.0048

Elem	Si2124	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	W_2079	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.465**	**.0019**	**.3986**	**.0233**	**.0006**	**.0054**	**-.0177**	**2.709**	**.0097**
Stddev	.007	.0003	.0005	.0001	.0003	.0001	.0002	.004	.0001
%RSD	.2039	14.11	.1360	.4881	50.60	2.791	1.013	.1350	.7453
#1	3.460	.0017	.3982	.0234	.0008	.0055	-.0179	2.712	.0096
#2	3.470	.0021	.3990	.0232	.0004	.0053	-.0176	2.707	.0097

Zoom In Zoom Out

Sample Name: MC33270-2A Acquired: 9/4/2014 10:21:39 Type: Unk
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6301.7**	**3494.1**	**137370.**	**18904.**
Stddev	8.2	5.8	212.	46.
%RSD	.12963	.16732	.15435	.24440
#1	6307.4	3498.3	137220.	18871.
#2	6295.9	3490.0	137520.	18937.

Zoom In Zoom Out

Sample Name: MC33246-1A Acquired: 9/4/2014 10:27:20 Type: Unk
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	Au2427	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.1349**	**.0067**	**-.0033**	**.7608**	**.3650**	**.0012**	**.0003**	**36.00**
Stddev	.0001	.0025	.0005	.0008	.0073	.0013	.0000	.0003	.05
%RSD	158.2	1.884	7.429	23.47	.9552	.3614	1.573	116.9	.1449
#1	.0000	.1331	.0071	-.0039	.7557	.3640	.0012	.0000	35.97
#2	-.0002	.1367	.0064	-.0028	.7659	.3659	.0012	.0005	36.04

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0009**	**.0268**	**.0017**	**.0245**	**.1630**	**9.644**	**-.0321**	**2.312**	**2.208**
Stddev	.0000	.0001	.0002	.0002	.0017	.066	.0009	.018	.010
%RSD	1.303	.1972	10.54	.9270	1.072	.6854	2.891	.7600	.4584
#1	.0010	.0268	.0019	.0247	.1642	9.597	-.0328	2.299	2.215
#2	.0009	.0268	.0016	.0244	.1618	9.691	-.0315	2.324	2.200

Elem	Mo2020	Na5895	Ni2316	Pb2203	Pd3404	Pt2659	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0090**	F **1149.**	**.0198**	**.0273**	**-.0018**	**-.0061**	**2.351**	**.0001**	**.0046**
Stddev	.0001	.	.0001	.0004	.0001	.0041	.018	.0003	.0006
%RSD	.8554	.0424	.4883	1.295	7.313	67.94	.7787	321.5	13.35
#1	.0090	1149.	.0199	.0271	-.0017	-.0090	2.339	-.0001	.0042
#2	.0091	1149.	.0197	.0276	-.0019	-.0032	2.364	.0004	.0051

Elem	Si2124	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	W_2079	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.545**	**.0014**	**.2517**	**.0016**	**.0002**	**.0005**	**.0018**	**.2723**	**.0007**
Stddev	.034	.0005	.0015	.0001	.0009	.0001	.0006	.0005	.0001
%RSD	.9668	37.77	.5768	4.461	565.2	22.22	31.20	.1837	7.473
#1	3.520	.0010	.2507	.0015	-.0005	.0006	.0014	.2726	.0008
#2	3.569	.0018	.2527	.0016	.0008	.0004	.0022	.2719	.0007

Zoom In Zoom Out

Sample Name: MC33246-1A Acquired: 9/4/2014 10:27:20 Type: Unk
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6402.3**	**3533.4**	**138600.**	**19174.**
Stddev	16.1	17.6	621.	12.
%RSD	.25101	.49749	.44773	.06322
#1	6413.7	3545.8	138170.	19165.
#2	6391.0	3520.9	139040.	19182.

Zoom In Zoom Out

Sample Name: MC33244-1 Acquired: 9/4/2014 10:34:04 Type: Unk
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	Au2427	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0009**	**.0445**	**-.0015**	**-.0036**	**.6494**	**3.772**	**.0000**	**.0019**	**330.6**
Stddev	.0001	.0013	.0005	.0002	.0035	.001	.0000	.0000	2.7
%RSD	10.80	2.940	30.44	6.180	.5441	.0318	58.57	1.551	.8183
#1	.0009	.0436	-.0012	-.0035	.6519	3.773	.0000	.0019	328.7
#2	.0010	.0454	-.0019	-.0038	.6469	3.771	.0000	.0019	332.5

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0245**	**.0048**	**.0047**	**.6418**	**.0133**	**2.976**	**-.0305**	**20.48**	**2.055**
Stddev	.0000	.0001	.0001	.0004	.0001	.034	.0012	.15	.003
%RSD	.1663	1.968	2.272	.0668	.4467	1.133	3.940	.7248	.1534
#1	.0245	.0049	.0048	.6415	.0133	2.952	-.0314	20.38	2.057
#2	.0245	.0048	.0047	.6421	.0133	3.000	-.0297	20.59	2.053

Elem	Mo2020	Na5895	Ni2316	Pb2203	Pd3404	Pt2659	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0096**	F **1217.**	**.0983**	**.0287**	**-.0018**	**-.0057**	**3.644**	**-.0004**	**.0086**
Stddev	.0001	7.	.0004	.0009	.0007	.0030	.007	.0003	.0003
%RSD	1.095	.6149	.4518	2.964	37.87	51.61	.1962	85.31	4.018
#1	.0097	1223.	.0980	.0281	-.0023	-.0078	3.649	-.0006	.0089
#2	.0095	1212.	.0986	.0293	-.0013	-.0036	3.639	-.0002	.0084

Elem	Si2124	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	W_2079	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.881**	**.0014**	**.6667**	**.0013**	**-.0004**	**.0001**	**-.0269**	**3.721**	**.0007**
Stddev	.021	.0008	.0008	.0000	.0013	.0000	.0008	.032	.0001
%RSD	.7320	56.82	.1236	3.707	289.4	26.96	2.922	.8478	20.71
#1	2.896	.0019	.6673	.0013	-.0013	.0001	-.0264	3.699	.0007
#2	2.866	.0008	.6661	.0014	.0005	.0002	-.0275	3.744	.0006

Zoom In Zoom Out

Sample Name: MC33244-1 Acquired: 9/4/2014 10:34:04 Type: Unk
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6110.2**	**3372.0**	**135390.**	**19147.**
Stddev	13.4	4.4	212.	65.
%RSD	.21949	.13091	.15688	.33947
#1	6119.6	3368.9	135240.	19193.
#2	6100.7	3375.2	135540.	19101.

Zoom In Zoom Out

Sample Name: CRIB Acquired: 9/4/2014 10:40:24 Type: QC
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	Au2427	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0048**	**.1912**	**.0100**	**.0501**	**.0973**	**.4764**	**.0039**	**.0522**	**4.804**
Stddev	.0004	.0019	.0001	.0003	.0005	.0019	.0001	.0002	.005
%RSD	8.508	1.004	1.487	.5157	.4664	.4050	3.003	.2941	.0994
#1	.0051	.1899	.0101	.0503	.0970	.4777	.0040	.0520	4.800
#2	.0045	.1926	.0098	.0499	.0976	.4750	.0038	.0523	4.807
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value									
Range									

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0038**	**.0479**	**.0095**	**.0255**	**.0922**	**4.502**	**.4882**	**4.528**	**.0152**
Stddev	.0001	.0001	.0003	.0003	.0018	.013	.0021	.002	.0000
%RSD	2.790	.1175	3.574	1.254	1.925	.2837	.4227	.0466	.1646
#1	.0037	.0479	.0097	.0253	.0909	4.511	.4897	4.526	.0152
#2	.0038	.0479	.0092	.0257	.0934	4.492	.4868	4.529	.0152
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass
Value									
Range									

Elem	Mo2020	Na5895	Ni2316	Pb2203	Pd3404	Pt2659	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0995**	**4.896**	**.0402**	**.0097**	**.0501**	**.0478**	**.0490**	**.0067**	**.0240**
Stddev	.0006	.001	.0004	.0003	.0012	.0016	.0009	.0003	.0005
%RSD	.6052	.0246	.8872	3.067	2.399	3.379	1.857	4.724	1.892
#1	.0991	4.895	.0404	.0099	.0493	.0490	.0496	.0065	.0243
#2	.1000	4.896	.0399	.0095	.0510	.0467	.0483	.0069	.0236
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CRIB Acquired: 9/4/2014 10:40:24 Type: QC
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2124	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	W_2079	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1047**	**.1007**	**.0102**	**.0473**	**.0049**	**.0098**	**.0501**	**.1000**	**.0274**
Stddev	.0010	.0006	.0000	.0002	.0004	.0001	.0011	.0003	.0005
%RSD	.9965	.5886	.3139	.3944	8.661	1.426	2.294	.2971	1.895
#1	.1039	.1002	.0103	.0475	.0046	.0097	.0493	.0997	.0270
#2	.1054	.1011	.0102	.0472	.0052	.0099	.0509	.1002	.0277
Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	None
Value									
Range									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**8106.0**	**3996.4**	**158130.**	**19446.**
Stddev	5.4	3.4	570.	63.
%RSD	.06676	.08406	.36036	.32303
#1	8109.9	3998.8	158530.	19491.
#2	8102.2	3994.0	157730.	19402.

Zoom In Zoom Out

Sample Name: ICSA Acquired: 9/4/2014 10:45:59 Type: QC
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	Au2427	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0010**	**505.1**	**-.0015**	**-.0120**	**-.0000**	**.0003**	**.0001**	**.0050**	**461.5**
Stddev	.0000	3.1	.0001	.0006	.0006	.0001	.0000	.0013	3.1
%RSD	2.259	.6194	5.130	4.615	3348.	15.26	32.81	25.99	.6810
#1	-.0011	502.9	-.0014	-.0124	-.0005	.0004	.0000	.0060	459.3
#2	-.0010	507.3	-.0015	-.0116	.0004	.0003	.0001	.0041	463.7
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0008**	**-.0004**	**.0002**	**-.0005**	**174.8**	**-.0138**	**.0082**	**495.3**	**.0236**
Stddev	.0001	.0002	.0001	.0002	.4	.0132	.0001	1.4	.0000
%RSD	12.57	47.94	36.45	41.66	.2544	95.76	.7439	.2919	.2016
#1	-.0007	-.0003	.0002	-.0003	174.5	-.0045	.0083	494.3	.0235
#2	-.0008	-.0005	.0003	-.0006	175.1	-.0232	.0082	496.3	.0236
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Mo2020	Na5895	Ni2316	Pb2203	Pd3404	Pt2659	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0019**	**.6184**	**.0000**	**-.0006**	**-.0222**	**-.0120**	**.0122**	**.0004**	**.0030**
Stddev	.0000	.0003	.0002	.0006	.0007	.0014	.0005	.0026	.0001
%RSD	.7700	.0431	18960.	105.9	3.033	11.70	3.894	603.6	2.960
#1	.0019	.6182	-.0001	-.0010	-.0227	-.0110	.0119	.0023	.0030
#2	.0019	.6186	.0001	-.0001	-.0218	-.0130	.0126	-.0014	.0029
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ICSA Acquired: 9/4/2014 10:45:59 Type: QC
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2124	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	W_2079	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0150**	**.0010**	**.0012**	**.0009**	**-.0006**	**-.0005**	**.0144**	**.0007**	**.0008**
Stddev	.0012	.0011	.0001	.0001	.0007	.0001	.0009	.0001	.0002
%RSD	7.834	110.3	6.181	7.873	120.6	26.92	6.293	17.01	29.01
#1	.0158	.0018	.0013	.0009	-.0001	-.0004	.0151	.0008	.0006
#2	.0142	.0002	.0012	.0010	-.0010	-.0006	.0138	.0006	.0009
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6561.5**	**3561.5**	**138190.**	**18431.**
Stddev	11.8	9.1	390.	24.
%RSD	.17952	.25483	.28228	.13084
#1	6553.1	3555.1	138470.	18448.
#2	6569.8	3567.9	137910.	18414.

Zoom In Zoom Out

Sample Name: ICSAB Acquired: 9/4/2014 10:51:41 Type: QC
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	Au2427	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.9797**	**504.1**	**1.992**	**.5217**	**.9564**	**.4705**	**.4760**	**.5280**	**455.3**
Stddev	.0012	1.7	.007	.0002	.0027	.0002	.0001	.0002	3.8
%RSD	.1180	.3315	.3664	.0332	.2804	.0326	.0153	.0348	.8344
#1	.9789	502.9	1.987	.5218	.9545	.4704	.4760	.5279	458.0
#2	.9805	505.3	1.997	.5216	.9583	.4706	.4761	.5282	452.6
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit									
Low Limit									

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.9879**	**.4625**	**.4347**	**.5326**	**174.5**	**-.0540**	**.5408**	**493.6**	**.5028**
Stddev	.0033	.0017	.0007	.0004	.3	.0008	.0008	1.8	.0001
%RSD	.3326	.3612	.1606	.0822	.1571	1.403	.1422	.3668	.0161
#1	.9856	.4613	.4352	.5329	174.7	-.0546	.5402	494.9	.5027
#2	.9902	.4637	.4343	.5322	174.3	-.0535	.5413	492.3	.5028
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Mo2020	Na5895	Ni2316	Pb2203	Pd3404	Pt2659	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.9128**	**.5175**	**.9453**	**.9019**	**.5346**	**.5003**	**.4978**	**2.116**	**2.033**
Stddev	.0048	.0004	.0022	.0008	.0001	.0015	.0001	.006	.000
%RSD	.5266	.0786	.2339	.0874	.0269	.3063	.0208	.2864	.0014
#1	.9094	.5172	.9437	.9014	.5345	.4992	.4977	2.112	2.033
#2	.9162	.5177	.9469	.9025	.5347	.5014	.4979	2.120	2.033
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ICSAB Acquired: 9/4/2014 10:51:41 Type: QC
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2124	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	W_2079	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.104**	**.9518**	**1.043**	**.4629**	**1.773**	**.4866**	**1.811**	**.8488**	**.3265**
Stddev	.004	.0015	.001	.0001	.006	.0001	.010	.0026	.0057
%RSD	.1803	.1610	.0988	.0223	.3344	.0294	.5765	.3042	1.751
#1	2.101	.9507	1.042	.4628	1.769	.4867	1.804	.8470	.3224
#2	2.107	.9529	1.044	.4630	1.777	.4865	1.819	.8507	.3305
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None
High Limit									
Low Limit									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6568.1**	**3569.4**	**138560.**	**18417.**
Stddev	16.7	7.5	103.	103.
%RSD	.25381	.21077	.07437	.56066
#1	6579.9	3574.7	138630.	18344.
#2	6556.3	3564.1	138480.	18490.

Zoom In Zoom Out

Sample Name: CCV Acquired: 9/4/2014 10:57:18 Type: QC
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	Au2427	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2371**	**9.611**	**1.923**	**2.070**	**1.934**	**1.935**	**1.964**	**2.085**	**9.984**
Stddev	.0002	.065	.003	.004	.001	.006	.004	.001	.023
%RSD	.0710	.6776	.1597	.1955	.0508	.2907	.2104	.0433	.2260
#1	.2372	9.657	1.925	2.073	1.934	1.939	1.967	2.086	10.000
#2	.2369	9.565	1.921	2.067	1.933	1.931	1.961	2.085	9.968
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value									
Range									

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.916**	**1.939**	**1.858**	**2.041**	**9.566**	**9.208**	**2.064**	**9.365**	**2.007**
Stddev	.003	.003	.003	.002	.043	.008	.009	.026	.001
%RSD	.1382	.1443	.1719	.0861	.4495	.0859	.4198	.2755	.0700
#1	1.918	1.941	1.856	2.042	9.596	9.214	2.070	9.383	2.006
#2	1.914	1.937	1.861	2.039	9.535	9.202	2.058	9.347	2.008
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass
Value									
Range									

Elem	Mo2020	Na5895	Ni2316	Pb2203	Pd3404	Pt2659	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.961**	**9.682**	**2.023**	**1.936**	**1.983**	**1.974**	**1.924**	**1.995**	**1.956**
Stddev	.003	.030	.004	.002	.002	.003	.013	.002	.002
%RSD	.1593	.3087	.1929	.0754	.0737	.1714	.6769	.0734	.1074
#1	1.959	9.703	2.026	1.937	1.984	1.976	1.933	1.996	1.957
#2	1.963	9.661	2.020	1.935	1.982	1.971	1.915	1.994	1.954
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 9/4/2014 10:57:18 Type: QC
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2124	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	W_2079	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.069**	**2.075**	**2.140**	**1.946**	**1.935**	**2.048**	**1.927**	**1.889**	**1.994**
Stddev	.001	.007	.009	.000	.003	.001	.001	.004	.004
%RSD	.0275	.3225	.4383	.0146	.1345	.0332	.0316	.1998	.1946
#1	2.069	2.080	2.147	1.946	1.933	2.048	1.927	1.891	1.997
#2	2.068	2.071	2.133	1.946	1.936	2.049	1.927	1.886	1.992
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**7937.4**	**4031.3**	**157110.**	**19253.**
Stddev	1.5	2.3	234.	14.
%RSD	.01896	.05739	.14901	.07525
#1	7936.3	4029.6	157270.	19243.
#2	7938.4	4032.9	156940.	19263.

Zoom In Zoom Out

Sample Name: CCB Acquired: 9/4/2014 11:05:31 Type: QC
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	Au2427	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0017**	**-.0006**	**.0010**	**.0017**	**-.0000**	**-.0000**	**.0003**	**.0143**
Stddev	.0001	.0009	.0004	.0000	.0001	.0000	.0000	.0002	.0018
%RSD	43.48	51.28	69.10	4.445	7.308	116.1	82.53	71.90	12.75
#1	.0003	.0011	-.0009	.0010	.0016	-.0000	-.0000	.0004	.0130
#2	.0002	.0023	-.0003	.0010	.0017	-.0001	-.0000	.0001	.0156
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0002**	**-.0001**	**.0010**	**.0014**	**.0118**	**.0004**	**-.0098**	**.0000**
Stddev	.0000	.0002	.0003	.0001	.0007	.0026	.0001	.0128	.0000
%RSD	21.43	90.25	403.3	5.404	48.17	22.48	14.72	131.4	31.05
#1	.0002	.0003	.0001	.0011	.0018	.0137	.0004	-.0007	.0000
#2	.0002	.0001	-.0002	.0010	.0009	.0099	.0003	-.0188	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Mo2020	Na5895	Ni2316	Pb2203	Pd3404	Pt2659	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0031**	**.1410**	**.0001**	**.0005**	**-.0000**	**-.0016**	**.0006**	**.0004**	**-.0002**
Stddev	.0003	.0075	.0000	.0009	.0005	.0004	.0005	.0006	.0005
%RSD	10.52	5.298	30.92	167.9	10900.	22.72	81.01	140.0	236.8
#1	.0033	.1463	.0002	.0011	-.0004	-.0013	.0002	.0008	-.0005
#2	.0029	.1357	.0001	-.0001	.0004	-.0019	.0009	.0000	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: CCB Acquired: 9/4/2014 11:05:31 Type: QC
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2124	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	W_2079	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0022**	**.0000**	**-.0000**	**.0001**	**.0010**	**-.0003**	**.0071**	**.0006**	**.0011**
Stddev	.0002	.0006	.0000	.0001	.0001	.0001	.0009	.0000	.0000
%RSD	10.76	2171.	56.76	108.7	12.81	36.43	12.39	7.583	.3536
#1	.0024	.0004	-.0001	.0000	.0009	-.0002	.0077	.0006	.0011
#2	.0021	-.0004	-.0000	.0002	.0011	-.0004	.0065	.0005	.0011
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**8313.0**	**4050.5**	**160950.**	**19461.**
Stddev	16.5	8.6	2044.	273.
%RSD	.19815	.21274	1.2700	1.4053
#1	8324.7	4056.6	162390.	19268.
#2	8301.4	4044.4	159500.	19655.

Zoom In Zoom Out

Sample Name: 200PPMFECONF Acquired: 9/4/2014 11:11:12 Type: Unk
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	Au2427	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**.0124**	**.0005**	**-.0113**	**-.0010**	**.0001**	**.0001**	**.0023**	**.0181**
Stddev	.0003	.0039	.0005	.0002	.0002	.0000	.0000	.0006	.0004
%RSD	96.79	31.16	95.51	1.378	18.75	5.970	1.306	27.93	2.400
#1	.0001	.0151	.0009	-.0112	-.0011	.0001	.0001	.0019	.0178
#2	.0005	.0096	.0002	-.0114	-.0009	.0001	.0001	.0028	.0184

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**-.0010**	**-.0000**	**.0003**	**188.5**	**-.1271**	**-.0001**	**.0217**	**.0249**
Stddev	.0000	.0001	.0002	.0002	.7	.0272	.0009	.0054	.0001
%RSD	11.68	8.997	3487.	90.98	.3536	21.43	1270.	24.93	.4792
#1	.0003	-.0010	-.0001	.0001	188.0	-.1079	-.0007	.0255	.0248
#2	.0002	-.0011	.0001	.0004	189.0	-.1464	.0006	.0179	.0250

Elem	Mo2020	Na5895	Ni2316	Pb2203	Pd3404	Pt2659	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.1219**	**.0002**	**-.0004**	**-.0151**	**-.0115**	**.0034**	**.0013**	**.0045**
Stddev	.0003	.0023	.0000	.0002	.0006	.0029	.0004	.0002	.0001
%RSD	202.6	1.899	11.06	43.95	4.114	24.76	11.28	14.72	2.950
#1	.0004	.1235	.0002	-.0005	-.0147	-.0095	.0036	.0014	.0046
#2	-.0001	.1202	.0001	-.0002	-.0155	-.0135	.0031	.0012	.0044

Elem	Si2124	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	W_2079	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0019**	**.0018**	**.0001**	**-.0000**	**.0010**	**-.0011**	**.0069**	**.0009**	**.0019**
Stddev	.0000	.0002	.0000	.0000	.0002	.0003	.0006	.0000	.0001
%RSD	1.981	8.617	21.41	19.63	21.69	26.22	8.822	3.444	3.839
#1	-.0019	.0019	.0002	-.0000	.0008	-.0009	.0073	.0009	.0019
#2	-.0018	.0017	.0001	-.0000	.0012	-.0012	.0064	.0009	.0020

Zoom In Zoom Out

Sample Name: 200PPMFECONF Acquired: 9/4/2014 11:11:12 Type: Unk
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**8211.9**	**3986.0**	**156530.**	**19162.**
Stddev	17.7	9.5	40.	143.
%RSD	.21514	.23949	.02564	.74814
#1	8199.4	3979.2	156560.	19264.
#2	8224.4	3992.7	156500.	19061.

Zoom In Zoom Out

Sample Name: 500PPMALCONF Acquired: 9/4/2014 11:16:51 Type: Unk
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	Au2427	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**487.6**	**-.0013**	**-.0001**	**.0021**	**.0004**	**.0001**	**.0010**	**.0121**
Stddev	.0001	5.4	.0000	.0001	.0008	.0001	.0000	.0002	.0007
%RSD	19.03	1.100	3.726	146.4	40.62	25.30	21.47	16.72	5.521
#1	.0004	491.4	-.0014	-.0002	.0027	.0005	.0001	.0011	.0117
#2	.0003	483.9	-.0013	.0000	.0015	.0003	.0001	.0009	.0126

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**-.0001**	**.0001**	**.0018**	**.0998**	**.0212**	**-.0002**	**-.0073**	**.0014**
Stddev	.0000	.0002	.0002	.0000	.0021	.0012	.0003	.0080	.0000
%RSD	30.42	283.5	185.9	1.675	2.093	5.552	167.2	110.4	2.199
#1	.0001	-.0002	-.0000	.0019	.1012	.0204	.0000	-.0130	.0014
#2	.0001	.0001	.0003	.0018	.0983	.0221	-.0004	-.0016	.0014

Elem	Mo2020	Na5895	Ni2316	Pb2203	Pd3404	Pt2659	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0028**	**.1611**	**-.0003**	**.0000**	**-.0009**	**-.0006**	**.0030**	**-.0001**	**-.0001**
Stddev	.0001	.0054	.0001	.0003	.0007	.0001	.0007	.0006	.0037
%RSD	2.284	3.352	22.28	10130.	78.78	26.18	22.65	491.3	5907.
#1	.0028	.1573	-.0002	-.0002	-.0004	-.0007	.0025	-.0006	.0025
#2	.0029	.1650	-.0003	.0002	-.0014	-.0005	.0035	.0003	-.0026

Elem	Si2124	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	W_2079	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0097**	**.0009**	**.0001**	**-.0001**	**-.0007**	**.0000**	**.0120**	**.0024**	**.0010**
Stddev	.0007	.0004	.0000	.0002	.0004	.0003	.0008	.0002	.0001
%RSD	7.101	45.56	18.71	242.7	61.43	878.6	7.014	7.699	8.212
#1	.0092	.0012	.0001	.0001	-.0009	-.0002	.0125	.0025	.0009
#2	.0102	.0006	.0001	-.0002	-.0004	.0002	.0114	.0023	.0010

Zoom In Zoom Out

Sample Name: 500PPMALCONF Acquired: 9/4/2014 11:16:51 Type: Unk
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**7452.2**	**4094.2**	**150800.**	**19604.**
Stddev	11.9	8.1	186.	119.
%RSD	.16005	.19701	.12364	.60908
#1	7460.6	4099.9	150930.	19688.
#2	7443.7	4088.5	150660.	19519.

Zoom In Zoom Out

Sample Name: 500PPMNACONF Acquired: 9/4/2014 11:22:31 Type: Unk
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	Au2427	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**.0176**	**-.0010**	**.0005**	**.0009**	**.0002**	**.0000**	**-.0007**	**.0845**
Stddev	.0000	.0001	.0004	.0008	.0000	.0001	.0000	.0002	.0020
%RSD	12.98	.5644	45.47	184.5	.5279	53.04	70.12	34.81	2.310
#1	.0003	.0176	-.0007	-.0001	.0009	.0001	.0000	-.0005	.0859
#2	.0002	.0175	-.0013	.0010	.0009	.0002	.0000	-.0009	.0831

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**-.0001**	**.0008**	**.0014**	**.0045**	**-.0477**	**-.0198**	**.0145**	**.0002**
Stddev	.0001	.0001	.0001	.0001	.0007	.0064	.0005	.0062	.0000
%RSD	193.8	152.0	17.80	5.786	16.35	13.47	2.491	42.96	11.85
#1	-.0000	.0000	.0007	.0015	.0050	-.0432	-.0202	.0189	.0001
#2	.0002	-.0001	.0009	.0014	.0040	-.0522	-.0195	.0101	.0002

Elem	Mo2020	Na5895	Ni2316	Pb2203	Pd3404	Pt2659	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0048**	F **474.6**	**.0031**	**.0002**	**-.0009**	**-.0032**	**.0055**	**.0000**	**.0014**
Stddev	.0000	3.0	.0000	.0008	.0003	.0030	.0000	.0002	.0008
%RSD	.0438	.6303	1.330	339.9	33.96	95.93	.0747	422.3	56.65
#1	.0048	472.5	.0032	-.0003	-.0007	-.0010	.0055	.0002	.0019
#2	.0048	476.7	.0031	.0008	-.0011	-.0053	.0055	-.0001	.0008

Elem	Si2124	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	W_2079	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0036**	**.0003**	**-.0000**	**.0002**	**.0001**	**-.0001**	**.0045**	**-.0010**	**.0006**
Stddev	.0009	.0002	.0000	.0001	.0004	.0001	.0003	.0000	.0002
%RSD	24.50	66.27	5.795	58.96	386.8	120.4	7.111	.2191	29.80
#1	-.0042	.0001	-.0000	.0001	.0004	-.0000	.0047	-.0010	.0005
#2	-.0029	.0004	-.0001	.0003	-.0002	-.0002	.0043	-.0010	.0007

Zoom In Zoom Out

Sample Name: 500PPMNACONF Acquired: 9/4/2014 11:22:31 Type: Unk
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6969.2**	**3751.5**	**143720.**	**18698.**
Stddev	10.3	10.7	294.	104.
%RSD	.14785	.28602	.20436	.55412
#1	6976.5	3759.0	143510.	18625.
#2	6961.9	3743.9	143930.	18771.

Zoom In Zoom Out

Sample Name: MC33244-2 Acquired: 9/4/2014 11:40:39 Type: Unk
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	Au2427	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0292**	**.0002**	**-.0048**	**.9638**	**1.410**	**-.0000**	**.0018**	**166.1**
Stddev	.0000	.0039	.0004	.0002	.0011	.001	.0000	.0003	.1
%RSD	34.01	13.33	246.0	4.809	.1111	.0676	143.0	16.27	.0494
#1	.0001	.0264	.0004	-.0050	.9630	1.411	.0000	.0016	166.0
#2	.0001	.0319	-.0001	-.0047	.9645	1.410	-.0000	.0020	166.2

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0105**	**.0205**	**.0830**	**.0395**	**33.07**	**13.05**	**-.0444**	**3.986**	**1.966**
Stddev	.0000	.0000	.0001	.0005	.03	.01	.0008	.012	.003
%RSD	.1690	.0671	.1561	1.153	.1007	.1000	1.911	.3123	.1614
#1	.0105	.0205	.0829	.0392	33.04	13.04	-.0450	3.978	1.969
#2	.0105	.0205	.0831	.0398	33.09	13.06	-.0438	3.995	1.964

Elem	Mo2020	Na5895	Ni2316	Pb2203	Pd3404	Pt2659	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0747**	F **1295.**	**.8850**	**.0030**	**-.0043**	**-.0076**	**11.33**	**.0014**	**.0069**
Stddev	.0004	14.	.0009	.0002	.0005	.0002	.02	.0002	.0011
%RSD	.5826	1.059	.1047	5.966	11.49	2.184	.2095	14.86	16.22
#1	.0744	1285.	.8857	.0029	-.0046	-.0075	11.31	.0012	.0061
#2	.0750	1304.	.8844	.0031	-.0039	-.0077	11.34	.0015	.0077

Elem	Si2124	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	W_2079	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.291**	**.0024**	**.4417**	**.0011**	**.0021**	**.0000**	**.0024**	**.4372**	**.0057**
Stddev	.003	.0000	.0006	.0000	.0003	.0002	.0011	.0004	.0001
%RSD	.2429	1.606	.1252	2.668	13.78	2187.	44.45	.0975	1.836
#1	1.293	.0024	.4414	.0010	.0019	.0002	.0032	.4369	.0056
#2	1.289	.0024	.4421	.0011	.0023	-.0001	.0017	.4375	.0058

Zoom In Zoom Out

Sample Name: MC33244-2 Acquired: 9/4/2014 11:40:39 Type: Unk
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6257.3**	**3461.0**	**135560.**	**18667.**
Stddev	3.9	1.7	447.	14.
%RSD	.06262	.04868	.32942	.07740
#1	6254.5	3462.1	135240.	18677.
#2	6260.0	3459.8	135870.	18656.

Zoom In Zoom Out

Sample Name: MC33244-3 Acquired: 9/4/2014 11:46:19 Type: Unk
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	Au2427	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0013**	**-.0045**	**-.0011**	**-.0110**	**.3814**	F **38.62**	**-.0000**	**.0049**	**567.8**
Stddev	.0001	.0003	.0003	.0008	.0004	.36	.0000	.0001	7.2
%RSD	7.561	5.670	26.41	6.823	.1052	.9365	8.302	1.164	1.261
#1	.0012	-.0043	-.0013	-.0105	.3812	38.37	-.0000	.0049	562.7
#2	.0013	-.0046	-.0009	-.0115	.3817	38.88	-.0000	.0050	572.8

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0024**	**.3172**	**.0022**	**.0036**	**42.84**	**8.298**	**-.0268**	**10.23**	**7.620**
Stddev	.0000	.0006	.0000	.0005	.04	.011	.0006	.01	.029
%RSD	.6013	.1912	.5438	12.79	.1005	.1315	2.252	.0679	.3800
#1	.0024	.3177	.0022	.0039	42.81	8.305	-.0272	10.23	7.599
#2	.0024	.3168	.0022	.0033	42.87	8.290	-.0264	10.22	7.640

Elem	Mo2020	Na5895	Ni2316	Pb2203	Pd3404	Pt2659	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0291**	F **1267.**	**1.905**	**.0033**	**-.0080**	**-.0055**	**2.860**	**.0004**	**.0062**
Stddev	.0002	19.	.001	.0001	.0007	.0018	.003	.0002	.0013
%RSD	.7509	1.503	.0594	4.123	9.286	33.28	.0882	35.94	21.25
#1	.0293	1281.	1.906	.0033	-.0086	-.0068	2.861	.0006	.0072
#2	.0290	1254.	1.904	.0032	-.0075	-.0042	2.858	.0003	.0053

Elem	Si2124	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	W_2079	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.403**	**.0023**	**1.378**	**.0014**	**-.0008**	**-.0000**	**.0024**	**.5501**	**.0024**
Stddev	.011	.0004	.001	.0000	.0026	.0000	.0006	.0007	.0001
%RSD	.1214	17.00	.0666	2.504	337.8	151.7	26.39	.1207	3.183
#1	9.395	.0021	1.379	.0014	-.0026	.0000	.0029	.5506	.0025
#2	9.411	.0026	1.377	.0015	.0011	-.0000	.0020	.5497	.0024

Zoom In Zoom Out

Sample Name: MC33244-3 Acquired: 9/4/2014 11:46:19 Type: Unk
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6118.8**	**3309.3**	**132120.**	**18458.**
Stddev	4.1	.7	528.	38.
%RSD	.06653	.02213	.39949	.20621
#1	6115.9	3309.8	132500.	18485.
#2	6121.6	3308.8	131750.	18432.

Zoom In Zoom Out

Sample Name: MC33244-4 Acquired: 9/4/2014 11:52:17 Type: Unk
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	Au2427	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0010**	**-.0077**	**-.0019**	**-.0036**	**.4078**	^ *****	**-.0001**	**.0027**	F **667.2**
Stddev	.0002	.0107	.0008	.0004	.0024	-----	.0000	.0009	11.7
%RSD	19.34	138.5	43.07	11.09	.5811	-----	58.28	32.08	1.748
#1	.0009	-.0002	-.0013	-.0039	.4061	^ -----	-.0001	.0021	659.0
#2	.0012	-.0153	-.0025	-.0033	.4095	^ -----	-.0000	.0033	675.4

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0089**	**.0080**	**.0018**	**.1504**	**.0111**	**7.971**	**-.0229**	**14.84**	**2.087**
Stddev	.0002	.0000	.0001	.0031	.0015	.038	.0010	.06	.032
%RSD	2.504	.2819	4.023	2.061	13.36	.4735	4.222	.3732	1.542
#1	.0087	.0080	.0017	.1482	.0122	7.998	-.0236	14.88	2.064
#2	.0090	.0080	.0018	.1525	.0101	7.945	-.0222	14.80	2.110

Elem	Mo2020	Na5895	Ni2316	Pb2203	Pd3404	Pt2659	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0221**	F **1304.**	**.3927**	**-.0012**	**-.0027**	**-.0016**	**2.736**	**-.0006**	**.0066**
Stddev	.0001	19.	.0008	.0005	.0003	.0006	.010	.0001	.0010
%RSD	.6124	1.451	.2004	38.86	12.97	36.47	.3766	11.29	14.84
#1	.0222	1317.	.3922	-.0009	-.0029	-.0020	2.729	-.0006	.0073
#2	.0220	1290.	.3933	-.0016	-.0024	-.0012	2.743	-.0005	.0059

Elem	Si2124	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	W_2079	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**7.266**	**.0024**	**2.223**	**.0013**	**.0000**	**.0000**	**.0047**	**.2521**	**.0022**
Stddev	.028	.0009	.015	.0001	.0018	.0004	.0009	.0010	.0001
%RSD	.3899	38.27	.6837	4.249	5252.	1190.	19.09	.4045	6.792
#1	7.246	.0017	2.234	.0014	.0013	-.0002	.0053	.2514	.0021
#2	7.286	.0030	2.213	.0013	-.0012	.0003	.0040	.2529	.0023

Zoom In Zoom Out

Sample Name: MC33244-4 Acquired: 9/4/2014 11:52:17 Type: Unk
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6142.1**	**3246.7**	**128170.**	**18213.**
Stddev	8.5	7.9	1649.	126.
%RSD	.13917	.24272	1.2869	.69078
#1	6148.2	3252.2	129340.	18124.
#2	6136.1	3241.1	127000.	18302.

Zoom In Zoom Out

Sample Name: MC33244-5 Acquired: 9/4/2014 11:58:05 Type: Unk
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	Au2427	B_2089	Ba4554	Be3130	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**.1667**	**.0040**	**-.0136**	**.7152**	F **18.63**	**.0014**	**.0037**
Stddev	.0004	.0002	.0006	.0010	.0004	.10	.0000	.0002
%RSD	90.78	.0905	14.71	7.366	.0600	.5507	.9909	5.180
#1	.0001	.1666	.0036	-.0144	.7155	18.56	.0014	.0036
#2	.0007	.1668	.0044	-.0129	.7149	18.71	.0014	.0039

Elem	Ca3179	Cd2288	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**216.0**	**.0023**	**1.149**	**.0061**	**.0030**	**46.27**	**7.380**	**.0293**
Stddev	.4	.0001	.000	.0002	.0002	.05	.016	.0014
%RSD	.1881	3.918	.0023	3.156	6.067	.1032	.2206	4.705
#1	216.3	.0024	1.149	.0060	.0031	46.30	7.369	.0283
#2	215.7	.0022	1.149	.0062	.0029	46.24	7.392	.0303

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Pd3404	Pt2659
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**11.89**	**7.973**	**.0201**	F **1183.**	**6.447**	**.0006**	**-.0092**	**-.0071**
Stddev	.04	.041	.0000	1.	.001	.0002	.0003	.0013
%RSD	.3181	.5168	.1336	.0765	.0206	31.38	3.334	17.92
#1	11.92	8.002	.0201	1183.	6.448	.0005	-.0090	-.0062
#2	11.86	7.944	.0201	1182.	6.446	.0008	-.0094	-.0080

Elem	S_1820	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.971**	**.0032**	**.0069**	**17.03**	**.0016**	**2.035**	**.0009**	**-.0007**
Stddev	.001	.0000	.0005	.00	.0000	.001	.0004	.0004
%RSD	.0328	1.220	7.242	.0272	.6036	.0659	38.99	64.74
#1	3.972	.0032	.0073	17.03	.0016	2.036	.0007	-.0010
#2	3.970	.0032	.0066	17.03	.0017	2.034	.0012	-.0004

Zoom In Zoom Out

Sample Name: MC33244-5 Acquired: 9/4/2014 11:58:05 Type: Unk
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	W_2079	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm
Avg	**-.0000**	F **-.1294**	F **15.97**	**.0028**
Stddev	.0002	.0003	.02	.0002
%RSD	400.0	.2469	.1064	5.912
#1	.0001	-.1296	15.96	.0027
#2	-.0002	-.1292	15.98	.0029

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6311.5**	**3469.9**	**137260.**	**19053.**
Stddev	3.1	1.0	474.	48.
%RSD	.04924	.02980	.34527	.25376
#1	6309.3	3470.6	136920.	19018.
#2	6313.7	3469.2	137590.	19087.

Zoom In Zoom Out

Sample Name: MC33244-6 Acquired: 9/4/2014 12:03:56 Type: Unk
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	Au2427	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0008**	**.0045**	**-.0000**	**-.0116**	**.5348**	F **17.05**	**.0001**	**.0043**	**511.2**
Stddev	.0001	.0013	.0006	.0003	.0001	.46	.0000	.0003	3.6
%RSD	8.511	28.59	4414.	2.488	.0150	2.715	17.29	6.031	.7084
#1	.0008	.0036	.0004	-.0114	.5347	16.72	.0001	.0044	508.7
#2	.0009	.0054	-.0004	-.0118	.5348	17.37	.0001	.0041	513.8

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0018**	**.7805**	**.0020**	**.0023**	**25.33**	**6.775**	**-.0060**	**14.27**	**8.447**
Stddev	.0000	.0005	.0002	.0002	.31	.052	.0000	.17	.002
%RSD	.6853	.0644	10.37	7.725	1.217	.7612	.7974	1.225	.0176
#1	.0018	.7801	.0019	.0022	25.12	6.738	-.0060	14.15	8.446
#2	.0018	.7808	.0022	.0024	25.55	6.811	-.0060	14.40	8.448

Elem	Mo2020	Na5895	Ni2316	Pb2203	Pd3404	Pt2659	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0509**	F **1166.**	**4.433**	**-.0012**	**-.0070**	**-.0096**	**4.625**	**.0037**	**.0062**
Stddev	.0003	26.	.005	.0014	.0005	.0017	.006	.0010	.0003
%RSD	.6064	2.213	.1204	123.6	6.844	18.28	.1409	26.87	5.459
#1	.0507	1147.	4.429	-.0001	-.0073	-.0083	4.620	.0045	.0060
#2	.0511	1184.	4.437	-.0022	-.0066	-.0108	4.629	.0030	.0065

Elem	Si2124	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	W_2079	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**13.14**	**.0017**	**1.710**	**.0012**	**.0004**	**-.0000**	**-.0096**	**2.187**	**.0028**
Stddev	.01	.0001	.018	.0001	.0006	.0003	.0002	.005	.0000
%RSD	.0917	4.462	1.070	4.891	144.2	775.1	2.559	.2375	1.260
#1	13.15	.0016	1.697	.0013	-.0000	-.0002	-.0094	2.183	.0028
#2	13.13	.0017	1.723	.0012	.0008	.0001	-.0098	2.190	.0028

Zoom In Zoom Out

Sample Name: MC33244-6 Acquired: 9/4/2014 12:03:56 Type: Unk
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6116.9**	**3333.6**	**133530.**	**18804.**
Stddev	3.0	2.0	30.	209.
%RSD	.04919	.06107	.02273	1.1122
#1	6114.8	3332.1	133550.	18952.
#2	6119.1	3335.0	133510.	18656.

Zoom In Zoom Out

Sample Name: MC33244-7 Acquired: 9/4/2014 12:09:52 Type: Unk
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	Au2427	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0014**	**-.0007**	**-.0022**	**-.0037**	**.4611**	**3.596**	**-.0001**	**.0025**	F **600.6**
Stddev	.0004	.0020	.0004	.0001	.0011	.007	.0000	.0001	.6
%RSD	29.55	272.2	20.21	1.753	.2383	.1863	6.954	3.904	.1034
#1	.0017	.0007	-.0025	-.0037	.4603	3.591	-.0001	.0025	600.1
#2	.0011	-.0021	-.0019	-.0038	.4618	3.600	-.0001	.0024	601.0

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0175**	**.0144**	**.0015**	**.0094**	**.0553**	**3.024**	**-.0228**	**10.66**	**2.198**
Stddev	.0002	.0000	.0001	.0002	.0000	.000	.0003	.16	.004
%RSD	.9506	.0715	9.596	2.027	.0211	.0095	1.315	1.526	.1899
#1	.0174	.0144	.0016	.0093	.0553	3.024	-.0226	10.55	2.201
#2	.0176	.0144	.0014	.0096	.0553	3.025	-.0230	10.78	2.195

Elem	Mo2020	Na5895	Ni2316	Pb2203	Pd3404	Pt2659	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0140**	F **1159.**	**.1297**	**.0001**	**-.0012**	**-.0048**	**5.641**	**-.0003**	**.0087**
Stddev	.0001	10.	.0001	.0000	.0005	.0026	.015	.0003	.0001
%RSD	.4175	.8268	.0774	34.23	41.69	54.31	.2659	106.8	.9347
#1	.0140	1152.	.1296	.0001	-.0009	-.0066	5.630	-.0001	.0086
#2	.0139	1165.	.1297	.0001	-.0016	-.0029	5.652	-.0005	.0087

Elem	Si2124	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	W_2079	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**7.693**	**.0018**	**1.240**	**.0016**	**.0003**	**-.0001**	**-.0165**	**2.532**	**.0014**
Stddev	.019	.0001	.003	.0001	.0000	.0000	.0010	.002	.0001
%RSD	.2453	2.986	.2650	6.342	6.618	36.55	6.060	.0942	6.404
#1	7.680	.0018	1.238	.0015	.0003	-.0001	-.0172	2.533	.0013
#2	7.706	.0017	1.242	.0016	.0003	-.0001	-.0158	2.530	.0015

Zoom In Zoom Out

Sample Name: MC33244-7 Acquired: 9/4/2014 12:09:52 Type: Unk
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6030.0**	**3310.7**	**132640.**	**18619.**
Stddev	7.0	3.7	177.	62.
%RSD	.11583	.11247	.13346	.33395
#1	6035.0	3313.3	132510.	18663.
#2	6025.1	3308.0	132760.	18575.

Zoom In Zoom Out

Sample Name: MC33244-8 Acquired: 9/4/2014 12:15:38 Type: Unk
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	Au2427	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0007**	**.0119**	**-.0028**	**-.0104**	**.6241**	**1.483**	**-.0000**	**.0017**	**365.6**
Stddev	.0001	.0031	.0005	.0001	.0027	.004	.0000	.0010	.8
%RSD	20.96	26.18	19.25	1.373	.4356	.2891	104.0	57.92	.2285
#1	-.0006	.0142	-.0032	-.0105	.6261	1.480	-.0000	.0024	365.0
#2	-.0008	.0097	-.0024	-.0103	.6222	1.486	-.0000	.0010	366.1

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0442**	**.0822**	**.0066**	**.0126**	**79.69**	**3.040**	**-.0311**	**6.933**	**4.684**
Stddev	.0002	.0002	.0000	.0001	.16	.012	.0001	.015	.007
%RSD	.5114	.2189	.4002	1.085	.2040	.4080	.3046	.2153	.1596
#1	.0444	.0823	.0066	.0125	79.58	3.032	-.0310	6.943	4.679
#2	.0440	.0821	.0065	.0127	79.81	3.049	-.0311	6.922	4.689

Elem	Mo2020	Na5895	Ni2316	Pb2203	Pd3404	Pt2659	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0120**	F **1172.**	**.5143**	**.0039**	**-.0093**	**-.0090**	**8.626**	**.0001**	**.0062**
Stddev	.0001	5.	.0012	.0000	.0007	.0002	.032	.0003	.0007
%RSD	1.220	.3972	.2270	1.236	7.116	2.745	.3678	395.4	10.66
#1	.0119	1169.	.5151	.0038	-.0089	-.0088	8.648	-.0001	.0066
#2	.0121	1176.	.5134	.0039	-.0098	-.0092	8.603	.0003	.0057

Elem	Si2124	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	W_2079	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**8.245**	**.0027**	**.8792**	**.0012**	**-.0002**	**-.0005**	**-.0406**	**5.324**	**.0020**
Stddev	.035	.0005	.0029	.0000	.0004	.0002	.0004	.018	.0001
%RSD	.4180	19.63	.3299	3.408	217.3	38.56	.9435	.3394	6.150
#1	8.270	.0031	.8772	.0012	-.0005	-.0004	-.0404	5.337	.0019
#2	8.221	.0023	.8813	.0012	.0001	-.0006	-.0409	5.312	.0021

Zoom In Zoom Out

Sample Name: MC33244-8 Acquired: 9/4/2014 12:15:38 Type: Unk
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6208.9**	**3376.2**	**135500.**	**19025.**
Stddev	14.1	11.5	29.	16.
%RSD	.22780	.34131	.02144	.08519
#1	6198.9	3368.0	135480.	19036.
#2	6218.9	3384.3	135520.	19014.

Zoom In Zoom Out

Sample Name: CCV Acquired: 9/4/2014 12:22:31 Type: QC
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	Au2427	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2368**	**9.625**	**1.944**	**2.051**	**1.958**	**1.954**	**1.956**	**2.099**	**9.808**
Stddev	.0014	.007	.002	.003	.001	.001	.001	.009	.002
%RSD	.5924	.0754	.1099	.1283	.0556	.0273	.0674	.4059	.0246
#1	.2378	9.630	1.946	2.049	1.959	1.954	1.957	2.105	9.809
#2	.2358	9.620	1.942	2.052	1.958	1.953	1.955	2.093	9.806
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value									
Range									

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.935**	**1.942**	**1.873**	**2.044**	**9.461**	**9.263**	**2.069**	**9.247**	**2.002**
Stddev	.000	.003	.005	.001	.015	.033	.001	.040	.004
%RSD	.0201	.1609	.2514	.0634	.1542	.3588	.0459	.4336	.1964
#1	1.936	1.940	1.869	2.043	9.472	9.239	2.070	9.219	2.000
#2	1.935	1.944	1.876	2.045	9.451	9.286	2.068	9.276	2.005
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass
Value									
Range									

Elem	Mo2020	Na5895	Ni2316	Pb2203	Pd3404	Pt2659	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.977**	**9.655**	**2.013**	**1.933**	**1.996**	**1.984**	**1.949**	**2.013**	**1.975**
Stddev	.005	.007	.003	.004	.001	.001	.004	.006	.006
%RSD	.2442	.0688	.1431	.1935	.0531	.0669	.2282	.2954	.3215
#1	1.974	9.650	2.011	1.930	1.997	1.985	1.952	2.017	1.980
#2	1.981	9.660	2.015	1.935	1.995	1.983	1.946	2.009	1.971
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 9/4/2014 12:22:31 Type: QC
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2124	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	W_2079	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.084**	**2.071**	**2.127**	**1.968**	**1.943**	**2.046**	**1.939**	**1.894**	**1.990**
Stddev	.003	.003	.002	.004	.001	.002	.002	.005	.004
%RSD	.1482	.1287	.0896	.1989	.0394	.1145	.1192	.2410	.2061
#1	2.086	2.073	2.128	1.965	1.943	2.045	1.937	1.891	1.987
#2	2.082	2.069	2.126	1.971	1.942	2.048	1.941	1.897	1.993
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**7952.7**	**4017.1**	**158530.**	**19672.**
Stddev	7.5	1.8	346.	2.
%RSD	.09441	.04484	.21801	.00787
#1	7958.0	4015.8	158770.	19673.
#2	7947.4	4018.4	158280.	19671.

Zoom In Zoom Out

Sample Name: CCB Acquired: 9/4/2014 12:29:04 Type: QC
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	Au2427	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0030**	**.0001**	**.0014**	**.0021**	**.0001**	**.0000**	**-.0001**	**.0133**
Stddev	.0002	.0045	.0002	.0010	.0000	.0000	.0000	.0004	.0044
%RSD	89.90	150.0	120.9	73.66	1.545	66.55	211.2	493.6	33.30
#1	.0001	.0062	.0000	.0021	.0022	.0001	-.0000	.0002	.0102
#2	.0004	-.0002	.0002	.0007	.0021	.0000	.0000	-.0004	.0165
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0001**	**.0001**	**.0011**	**.0063**	**.0450**	**.0007**	**-.0073**	**.0003**
Stddev	.0001	.0000	.0002	.0002	.0006	.0024	.0000	.0025	.0000
%RSD	25.67	33.90	261.6	21.58	9.546	5.382	.4633	33.95	8.596
#1	.0002	.0001	.0002	.0009	.0059	.0433	.0007	-.0055	.0003
#2	.0003	.0002	-.0001	.0012	.0067	.0467	.0007	-.0090	.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Mo2020	Na5895	Ni2316	Pb2203	Pd3404	Pt2659	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0041**	**.2841**	**.0002**	**.0004**	**-.0003**	**-.0002**	**.0011**	**.0005**	**-.0000**
Stddev	.0007	.0029	.0001	.0002	.0005	.0007	.0007	.0001	.0001
%RSD	17.24	1.022	78.07	58.08	175.8	382.3	64.76	13.45	421.0
#1	.0046	.2820	.0001	.0006	-.0006	.0003	.0006	.0005	-.0001
#2	.0036	.2862	.0002	.0002	.0001	-.0007	.0016	.0005	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: CCB Acquired: 9/4/2014 12:29:04 Type: QC
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2124	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	W_2079	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0031**	**.0003**	**.0000**	**.0005**	**.0004**	**-.0002**	**.0067**	**.0005**	**.0013**
Stddev	.0004	.0002	.0000	.0001	.0001	.0001	.0009	.0001	.0002
%RSD	14.49	62.31	567.9	14.85	27.28	62.81	13.34	16.48	12.46
#1	.0028	.0002	-.0000	.0004	.0003	-.0002	.0073	.0005	.0014
#2	.0034	.0005	.0000	.0005	.0005	-.0001	.0060	.0004	.0012
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**8356.2**	**4053.6**	**159030.**	**19291.**
Stddev	19.9	11.0	357.	5.
%RSD	.23821	.27105	.22469	.02546
#1	8370.2	4061.4	158770.	19295.
#2	8342.1	4045.9	159280.	19288.

Zoom In Zoom Out

Sample Name: MC33244-9 Acquired: 9/4/2014 12:34:47 Type: Unk
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	Au2427	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0014**	**.0426**	**-.0020**	**-.0059**	**.7428**	**.4653**	**.0001**	**.0021**	**572.7**
Stddev	.0001	.0109	.0011	.0004	.0012	.0001	.0000	.0004	3.2
%RSD	8.671	25.50	53.93	6.645	.1599	.0286	1.812	20.43	.5648
#1	.0015	.0349	-.0028	-.0062	.7436	.4654	.0001	.0018	575.0
#2	.0013	.0503	-.0012	-.0056	.7420	.4652	.0001	.0025	570.4

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.831**	**.0405**	**.0092**	**.2731**	**.6517**	**26.99**	**-.0109**	**44.48**	**3.626**
Stddev	.002	.0001	.0001	.0003	.0048	.05	.0038	.21	.006
%RSD	.0715	.2683	1.473	.1055	.7382	.1849	34.53	.4713	.1758
#1	2.833	.0405	.0093	.2733	.6483	27.03	-.0136	44.33	3.622
#2	2.830	.0404	.0091	.2729	.6551	26.96	-.0083	44.63	3.631

Elem	Mo2020	Na5895	Ni2316	Pb2203	Pd3404	Pt2659	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1122**	F **1405.**	**.9873**	**.0022**	**-.0022**	**-.0057**	F **47.97**	**.0016**	**.0092**
Stddev	.0002	24.	.0007	.0000	.0004	.0007	.02	.0006	.0021
%RSD	.1726	1.694	.0678	.7013	17.05	12.22	.0382	39.77	22.46
#1	.1123	1422.	.9868	.0022	-.0019	-.0052	47.96	.0011	.0106
#2	.1121	1388.	.9878	.0022	-.0024	-.0062	47.99	.0020	.0077

Elem	Si2124	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	W_2079	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**11.60**	**.0018**	**1.232**	**.0023**	**.0008**	**.0005**	**.0087**	**.2719**	**.0072**
Stddev	.01	.0004	.002	.0002	.0004	.0001	.0002	.0008	.0001
%RSD	.0500	20.23	.1757	6.794	54.24	28.60	2.510	.2839	1.963
#1	11.60	.0015	1.233	.0024	.0011	.0006	.0085	.2713	.0073
#2	11.59	.0021	1.230	.0022	.0005	.0004	.0088	.2724	.0071

Zoom In Zoom Out

Sample Name: MC33244-9 Acquired: 9/4/2014 12:34:47 Type: Unk
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5929.3**	**3277.1**	**130310.**	**18270.**
Stddev	.6	2.0	98.	73.
%RSD	.01062	.06154	.07499	.39992
#1	5929.8	3275.7	130380.	18218.
#2	5928.9	3278.6	130250.	18321.

Zoom In Zoom Out

Sample Name: MC33244-10 Acquired: 9/4/2014 12:40:31 Type: Unk
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	Au2427	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0016**	**-.0023**	**-.0015**	**-.0087**	**.4530**	**2.162**	**-.0001**	**.0033**	F **640.8**
Stddev	.0003	.0044	.0013	.0005	.0016	.009	.0000	.0007	2.1
%RSD	17.14	188.7	84.59	6.221	.3616	.4015	26.07	22.06	.3296
#1	.0018	-.0054	-.0024	-.0090	.4518	2.156	-.0001	.0028	639.3
#2	.0014	.0008	-.0006	-.0083	.4541	2.168	-.0001	.0038	642.3

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0381**	**.0372**	**.0014**	**.0062**	**.0518**	**2.530**	**-.0290**	**13.43**	**6.216**
Stddev	.0001	.0002	.0002	.0000	.0013	.042	.0025	.08	.088
%RSD	.3655	.4281	13.90	.2055	2.595	1.654	8.522	.5906	1.409
#1	.0382	.0371	.0013	.0062	.0509	2.500	-.0308	13.38	6.154
#2	.0380	.0374	.0016	.0062	.0528	2.559	-.0273	13.49	6.277

Elem	Mo2020	Na5895	Ni2316	Pb2203	Pd3404	Pt2659	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0182**	F **1213.**	**.5235**	**-.0016**	**-.0021**	**-.0060**	**2.762**	**-.0001**	**.0072**
Stddev	.0001	21.	.0002	.0008	.0001	.0002	.005	.0007	.0010
%RSD	.5373	1.705	.0387	45.93	6.369	2.889	.1969	610.2	14.02
#1	.0183	1228.	.5233	-.0022	-.0020	-.0059	2.758	-.0006	.0065
#2	.0182	1198.	.5236	-.0011	-.0022	-.0061	2.766	.0004	.0079

Elem	Si2124	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	W_2079	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.044**	**.0019**	**1.246**	**.0015**	**.0002**	**.0001**	**.0052**	**.3492**	**.0023**
Stddev	.016	.0003	.005	.0001	.0010	.0001	.0013	.0007	.0000
%RSD	.3990	16.85	.4311	9.498	547.1	85.23	24.98	.1869	.5071
#1	4.032	.0017	1.242	.0014	.0009	.0002	.0062	.3497	.0023
#2	4.055	.0021	1.250	.0016	-.0005	.0000	.0043	.3488	.0022

Zoom In Zoom Out

Sample Name: MC33244-10 Acquired: 9/4/2014 12:40:31 Type: Unk
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6011.3**	**3307.4**	**131520.**	**18269.**
Stddev	6.2	8.8	683.	14.
%RSD	.10253	.26565	.51962	.07454
#1	6015.7	3313.6	132010.	18279.
#2	6007.0	3301.2	131040.	18260.

Zoom In Zoom Out

Sample Name: MC33244-11 Acquired: 9/4/2014 12:46:22 Type: Unk
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	Au2427	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0011**	**.0317**	**-.0032**	**-.0022**	**1.035**	**.2486**	**-.0001**	**.0020**	**497.0**
Stddev	.0001	.0033	.0004	.0004	.008	.0003	.0000	.0005	2.5
%RSD	10.88	10.43	13.51	19.55	.7339	.1033	34.43	23.58	.5007
#1	.0012	.0293	-.0035	-.0019	1.029	.2484	-.0001	.0017	495.2
#2	.0010	.0340	-.0029	-.0024	1.040	.2488	-.0000	.0024	498.7

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0052**	**.0018**	**.0047**	**.0261**	**.0441**	**4.054**	**-.0291**	**10.68**	**1.169**
Stddev	.0001	.0003	.0001	.0001	.0019	.022	.0003	.05	.002
%RSD	2.391	18.61	1.389	.3941	4.213	.5470	.8785	.4932	.1412
#1	.0053	.0016	.0047	.0261	.0428	4.070	-.0289	10.64	1.171
#2	.0051	.0021	.0046	.0262	.0454	4.038	-.0292	10.72	1.168

Elem	Mo2020	Na5895	Ni2316	Pb2203	Pd3404	Pt2659	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0127**	F **1189.**	**.1957**	**.0013**	**-.0017**	**-.0049**	F **95.29**	**-.0003**	**.0083**
Stddev	.0002	17.	.0001	.0005	.0006	.0035	.23	.0002	.0003
%RSD	1.389	1.426	.0713	35.64	32.69	70.57	.2453	75.37	3.759
#1	.0126	1177.	.1956	.0010	-.0021	-.0025	95.12	-.0004	.0081
#2	.0129	1201.	.1958	.0016	-.0013	-.0074	95.45	-.0001	.0085

Elem	Si2124	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	W_2079	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.986**	**.0014**	**1.087**	**.0015**	**.0001**	**.0001**	**.0053**	**.1993**	**.0059**
Stddev	.031	.0002	.000	.0000	.0007	.0000	.0001	.0001	.0002
%RSD	.3069	16.33	.0128	.9725	527.7	13.98	1.349	.0475	2.741
#1	9.964	.0016	1.087	.0015	.0006	.0001	.0053	.1994	.0060
#2	10.01	.0013	1.087	.0014	-.0003	.0001	.0052	.1992	.0058

Zoom In Zoom Out

Sample Name: MC33244-11 Acquired: 9/4/2014 12:46:22 Type: Unk
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6081.7**	**3334.6**	**133080.**	**18588.**
Stddev	7.6	6.5	305.	39.
%RSD	.12506	.19433	.22887	.21178
#1	6087.1	3339.2	132870.	18560.
#2	6076.3	3330.0	133300.	18616.

Zoom In Zoom Out

Sample Name: MC32861-4R Acquired: 9/4/2014 12:52:10 Type: Unk
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	Au2427	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0008**	**.0573**	**.0042**	**-.0080**	**.6075**	**1.077**	**.0001**	**.0015**	**395.8**
Stddev	.0002	.0046	.0019	.0003	.0023	.000	.0000	.0003	2.1
%RSD	19.90	8.050	45.61	3.367	.3796	.0030	6.281	20.59	.5186
#1	.0010	.0606	.0028	-.0082	.6058	1.077	.0001	.0017	394.3
#2	.0007	.0540	.0055	-.0079	.6091	1.077	.0001	.0013	397.2

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0066**	**.0403**	**.0015**	**.0107**	**.0427**	**3.270**	**-.0226**	**35.78**	**5.181**
Stddev	.0000	.0002	.0000	.0001	.0019	.013	.0016	.15	.088
%RSD	.2432	.6065	1.114	.5288	4.352	.3854	7.187	.4265	1.692
#1	.0066	.0405	.0014	.0106	.0441	3.261	-.0237	35.89	5.243
#2	.0066	.0401	.0015	.0107	.0414	3.279	-.0215	35.67	5.119

Elem	Mo2020	Na5895	Ni2316	Pb2203	Pd3404	Pt2659	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0102**	F **1203.**	**.0524**	**.6020**	**-.0009**	**-.0039**	**5.391**	**.0050**	**.0059**
Stddev	.0001	18.	.0002	.0012	.0003	.0013	.001	.0004	.0005
%RSD	.6149	1.484	.4276	.2014	27.60	33.00	.0219	7.856	7.848
#1	.0103	1216.	.0523	.6012	-.0011	-.0030	5.392	.0047	.0056
#2	.0102	1191.	.0526	.6029	-.0007	-.0048	5.390	.0053	.0062

Elem	Si2124	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	W_2079	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.037**	**.0025**	**.6182**	**.0026**	**.0009**	**.0016**	**-.0088**	**1.692**	**.0026**
Stddev	.012	.0007	.0000	.0001	.0005	.0001	.0001	.006	.0000
%RSD	.2879	29.05	.0040	4.103	52.49	3.603	1.452	.3391	.4673
#1	4.028	.0031	.6181	.0027	.0006	.0015	-.0087	1.696	.0025
#2	4.045	.0020	.6182	.0025	.0013	.0016	-.0089	1.688	.0026

Zoom In Zoom Out

Sample Name: MC32861-4R Acquired: 9/4/2014 12:52:10 Type: Unk
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6059.8**	**3324.6**	**133740.**	**18750.**
Stddev	1.7	3.1	1957.	170.
%RSD	.02838	.09294	1.4633	.90437
#1	6061.0	3326.7	132360.	18630.
#2	6058.6	3322.4	135130.	18870.

Zoom In Zoom Out

Sample Name: MC33121-5R Acquired: 9/4/2014 12:58:02 Type: Unk
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	Au2427	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0012**	**.0407**	**.0012**	**-.0057**	**.6277**	**1.922**	**.0007**	**.0024**	**503.8**
Stddev	.0004	.0056	.0002	.0000	.0011	.001	.0000	.0008	1.8
%RSD	30.59	13.65	17.52	.2047	.1772	.0345	.8982	33.00	.3600
#1	.0009	.0446	.0013	-.0057	.6285	1.921	.0007	.0029	505.1
#2	.0014	.0368	.0010	-.0057	.6269	1.922	.0007	.0018	502.5

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3045**	**.0898**	**.0018**	**.0035**	**6.389**	**10.40**	**.0143**	**18.92**	**3.616**
Stddev	.0004	.0006	.0001	.0000	.004	.02	.0011	.04	.012
%RSD	.1457	.6140	6.922	.2985	.0659	.2148	7.421	.2141	.3222
#1	.3048	.0902	.0019	.0035	6.386	10.38	.0135	18.95	3.624
#2	.3042	.0894	.0017	.0035	6.392	10.41	.0150	18.89	3.608

Elem	Mo2020	Na5895	Ni2316	Pb2203	Pd3404	Pt2659	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0206**	F **1182.**	**1.996**	**.6794**	**-.0026**	**-.0043**	**5.625**	**.1376**	**.0076**
Stddev	.0002	5.	.006	.0018	.0004	.0007	.022	.0002	.0005
%RSD	1.104	.4615	.2793	.2668	15.01	15.80	.3911	.1469	5.949
#1	.0207	1186.	2.000	.6807	-.0024	-.0048	5.640	.1375	.0073
#2	.0204	1178.	1.992	.6782	-.0029	-.0038	5.609	.1378	.0079

Elem	Si2124	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	W_2079	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**15.07**	**.0019**	**1.608**	**.0019**	**.0002**	**.0002**	**-.0247**	**3.572**	**.0036**
Stddev	.02	.0004	.001	.0002	.0000	.0001	.0004	.007	.0001
%RSD	.1205	20.13	.0550	12.24	20.52	80.76	1.569	.2003	2.914
#1	15.08	.0022	1.607	.0021	.0002	.0001	-.0244	3.577	.0037
#2	15.05	.0016	1.608	.0018	.0002	.0002	-.0249	3.567	.0036

Zoom In Zoom Out

Sample Name: MC33121-5R Acquired: 9/4/2014 12:58:02 Type: Unk
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6054.0**	**3318.1**	**134260.**	**19113.**
Stddev	13.3	4.1	456.	29.
%RSD	.21909	.12250	.33960	.15306
#1	6044.6	3315.2	133930.	19092.
#2	6063.4	3320.9	134580.	19133.

Zoom In Zoom Out

Sample Name: MC33244-3 Acquired: 9/4/2014 13:03:46 Type: Unk
Method: Accutest2(v139) Mode: CONC Corr. Factor: 10.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: 10X

Elem	Ag3280	Al3961	As1890	Au2427	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0027**	**-.0449**	**.0029**	**-.0133**	**.4007**	**40.62**	**-.0005**	**.0046**	**597.3**
Stddev	.0031	.0526	.0030	.0026	.0023	1.52	.0002	.0012	12.4
%RSD	115.9	117.2	102.4	19.76	.5676	3.735	42.71	26.46	2.077
#1	.0048	-.0077	.0050	-.0114	.4023	41.70	-.0006	.0037	606.1
#2	.0005	-.0820	.0008	-.0152	.3991	39.55	-.0003	.0054	588.5

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0032**	**.3233**	**.0044**	**.0120**	**45.57**	**8.028**	**-.0228**	**10.74**	**8.149**
Stddev	.0003	.0042	.0016	.0019	1.03	.250	.0029	.37	.007
%RSD	9.332	1.297	35.51	15.39	2.262	3.118	12.79	3.406	.0819
#1	.0030	.3263	.0033	.0107	46.30	8.205	-.0208	11.00	8.145
#2	.0034	.3204	.0056	.0134	44.84	7.851	-.0249	10.48	8.154

Elem	Mo2020	Na5895	Ni2316	Pb2203	Pd3404	Pt2659	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0328**	**1336.**	**1.974**	**.0011**	**-.0125**	**-.0310**	**2.698**	**.0013**	**-.0070**
Stddev	.0007	30.	.005	.0016	.0019	.0111	.004	.0008	.0067
%RSD	1.996	2.248	.2474	148.5	15.51	35.85	.1517	61.02	96.61
#1	.0333	1357.	1.978	.0022	-.0112	-.0232	2.695	.0007	-.0117
#2	.0323	1315.	1.971	-.0001	-.0139	-.0389	2.701	.0018	-.0022

Elem	Si2124	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	W_2079	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**8.922**	**-.0034**	**1.380**	**.0074**	**.0016**	**-.0035**	**.0141**	**.5904**	**.0046**
Stddev	.020	.0057	.029	.0013	.0072	.0004	.0032	.0021	.0009
%RSD	.2223	164.6	2.133	17.00	448.0	12.20	22.97	.3496	19.45
#1	8.936	-.0074	1.401	.0083	-.0035	-.0038	.0118	.5918	.0052
#2	8.908	.0006	1.359	.0065	.0067	-.0032	.0164	.5889	.0040

Zoom In Zoom Out

Sample Name: MC33244-3 Acquired: 9/4/2014 13:03:46 Type: Unk
Method: Accutest2(v139) Mode: CONC Corr. Factor: 10.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: 10X

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**7439.8**	**3853.5**	**151950.**	**19340.**
Stddev	6.3	6.6	115.	312.
%RSD	.08435	.17150	.07560	1.6132
#1	7435.3	3848.8	152030.	19119.
#2	7444.2	3858.1	151870.	19560.

Zoom In Zoom Out

Sample Name: MC33244-4 Acquired: 9/4/2014 13:09:32 Type: Unk
Method: Accutest2(v139) Mode: CONC Corr. Factor: 20.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: 20X

Elem	Ag3280	Al3961	As1890	Au2427	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0055**	**.0255**	**-.0044**	**.0025**	**.4399**	**111.6**	**-.0008**	**.0108**	**719.6**
Stddev	.0037	.1188	.0061	.0105	.0040	.5	.0001	.0016	5.0
%RSD	67.60	466.0	138.7	415.4	.9058	.4351	8.937	15.11	.6989
#1	.0029	.1095	-.0087	.0099	.4427	111.3	-.0008	.0119	716.0
#2	.0081	-.0585	-.0001	-.0049	.4371	111.9	-.0007	.0096	723.1

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0089**	**.0044**	**.0065**	**.1554**	**-.0111**	**7.319**	**-.0454**	**15.17**	**2.140**
Stddev	.0004	.0009	.0032	.0001	.0116	.370	.0095	.12	.017
%RSD	4.728	19.69	48.66	.0439	104.2	5.060	20.98	.7736	.8011
#1	.0086	.0038	.0043	.1554	-.0029	7.057	-.0521	15.25	2.128
#2	.0092	.0050	.0088	.1554	-.0194	7.581	-.0386	15.08	2.152

Elem	Mo2020	Na5895	Ni2316	Pb2203	Pd3404	Pt2659	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0295**	**1397.**	**.4169**	**-.0042**	**-.0108**	**-.0234**	**2.534**	**.0017**	**-.0443**
Stddev	.0001	1.	.0008	.0025	.0007	.0039	.075	.0143	.0087
%RSD	.4437	.0618	.1925	59.75	6.282	16.60	2.981	853.7	19.71
#1	.0294	1397.	.4174	-.0060	-.0113	-.0261	2.587	.0118	-.0382
#2	.0296	1398.	.4163	-.0024	-.0103	-.0206	2.480	-.0085	-.0505

Elem	Si2124	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	W_2079	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**6.868**	**.0003**	**2.221**	**.0101**	**.0011**	**-.0030**	**.0284**	**.2876**	**.0070**
Stddev	.025	.0062	.005	.0034	.0098	.0006	.0101	.0017	.0034
%RSD	.3694	2186.	.2157	33.32	931.9	20.63	35.47	.6040	48.65
#1	6.886	-.0041	2.217	.0078	-.0059	-.0025	.0213	.2863	.0046
#2	6.850	.0047	2.224	.0125	.0080	-.0034	.0356	.2888	.0094

Zoom In Zoom Out

Sample Name: MC33244-4 Acquired: 9/4/2014 13:09:32 Type: Unk
Method: Accutest2(v139) Mode: CONC Corr. Factor: 20.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: 20X

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**7682.3**	**3912.6**	**154060.**	**19219.**
Stddev	10.0	5.2	840.	220.
%RSD	.13000	.13254	.54516	1.1444
#1	7689.4	3916.2	154650.	19374.
#2	7675.2	3908.9	153460.	19063.

Zoom In Zoom Out

Sample Name: MC33244-5 Acquired: 9/4/2014 13:15:17 Type: Unk
Method: Accutest2(v139) Mode: CONC Corr. Factor: 10.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: 10X

Elem	Ag3280	Al3961	As1890	Au2427	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0016**	**.1335**	**.0085**	**-.0127**	**.7526**	**19.54**	**.0015**	**.0094**	**225.7**
Stddev	.0000	.0262	.0016	.0049	.0030	.01	.0004	.0003	.0
%RSD	1.730	19.61	18.39	38.50	.4022	.0257	23.70	3.014	.0195
#1	.0016	.1150	.0097	-.0092	.7547	19.54	.0012	.0096	225.7
#2	.0016	.1520	.0074	-.0161	.7505	19.54	.0017	.0092	225.8

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0033**	**1.192**	**.0097**	**.0133**	**49.78**	**6.665**	**.0069**	**12.45**	**8.702**
Stddev	.0005	.001	.0017	.0002	.46	.160	.0051	.05	.011
%RSD	15.64	.0610	17.68	1.630	.9306	2.402	73.92	.4408	.1227
#1	.0037	1.193	.0109	.0132	50.11	6.552	.0033	12.49	8.709
#2	.0030	1.192	.0085	.0135	49.45	6.778	.0105	12.41	8.694

Elem	Mo2020	Na5895	Ni2316	Pb2203	Pd3404	Pt2659	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0236**	**1310.**	**6.677**	**-.0010**	**-.0063**	**-.0293**	**3.834**	**-.0016**	**.0024**
Stddev	.0028	5.	.014	.0020	.0117	.0093	.013	.0036	.0009
%RSD	11.85	.3733	.2144	196.1	186.1	31.73	.3308	225.1	37.83
#1	.0216	1313.	6.687	.0004	-.0145	-.0227	3.825	-.0041	.0018
#2	.0256	1306.	6.667	-.0024	.0020	-.0359	3.843	.0009	.0030

Elem	Si2124	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	W_2079	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**16.60**	**-.0011**	**2.074**	**.0059**	**-.0019**	**-.0036**	**-.1401**	**17.69**	**.0048**
Stddev	.06	.0004	.000	.0005	.0105	.0005	.0048	.01	.0004
%RSD	.3508	36.89	.0216	8.437	541.0	14.22	3.427	.0788	7.613
#1	16.64	-.0013	2.074	.0055	-.0093	-.0040	-.1435	17.70	.0045
#2	16.56	-.0008	2.073	.0062	.0055	-.0033	-.1367	17.68	.0050

Zoom In Zoom Out

Sample Name: MC33244-5 Acquired: 9/4/2014 13:15:17 Type: Unk
Method: Accutest2(v139) Mode: CONC Corr. Factor: 10.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: 10X

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**7505.1**	**3879.7**	**151990.**	**19338.**
Stddev	2.3	2.5	163.	1.
%RSD	.03108	.06487	.10695	.00477
#1	7506.8	3881.5	151880.	19338.
#2	7503.5	3878.0	152110.	19339.

Zoom In Zoom Out

Sample Name: MC33244-6 Acquired: 9/4/2014 13:21:02 Type: Unk
Method: Accutest2(v139) Mode: CONC Corr. Factor: 10.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: 10X

Elem	Ag3280	Al3961	As1890	Au2427	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0025**	**-.0008**	**-.0033**	**-.0066**	**.5518**	**17.39**	**-.0004**	**.0051**	**536.2**
Stddev	.0001	.0563	.0076	.0020	.0008	.01	.0003	.0027	.1
%RSD	5.169	7023.	227.1	29.49	.1504	.0582	67.19	53.79	.0228
#1	.0024	-.0406	-.0087	-.0080	.5524	17.40	-.0007	.0070	536.1
#2	.0025	.0390	.0020	-.0053	.5512	17.39	-.0002	.0031	536.3

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0028**	**.7979**	**.0038**	**.0113**	**26.64**	**5.950**	**-.0308**	**14.88**	**9.127**
Stddev	.0001	.0033	.0026	.0008	.03	.009	.0033	.16	.003
%RSD	3.325	.4145	67.69	6.801	.1105	.1432	10.64	1.071	.0341
#1	.0027	.7956	.0057	.0108	26.66	5.944	-.0331	14.99	9.129
#2	.0029	.8003	.0020	.0119	26.61	5.956	-.0285	14.77	9.125

Elem	Mo2020	Na5895	Ni2316	Pb2203	Pd3404	Pt2659	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0546**	**1291.**	**4.541**	**-.0063**	**-.0123**	**-.0367**	**4.392**	**.0017**	**.0016**
Stddev	.0003	12.	.006	.0013	.0005	.0409	.018	.0047	.0004
%RSD	.6039	.9322	.1247	20.94	4.400	111.3	.4009	287.5	23.55
#1	.0548	1300.	4.545	-.0073	-.0127	-.0078	4.404	-.0017	.0018
#2	.0544	1283.	4.537	-.0054	-.0119	-.0656	4.379	.0050	.0013

Elem	Si2124	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	W_2079	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**12.40**	**-.0033**	**1.707**	**.0098**	**.0060**	**-.0023**	**-.0037**	**2.356**	**.0042**
Stddev	.02	.0061	.001	.0001	.0105	.0009	.0070	.001	.0001
%RSD	.1327	184.0	.0305	.7691	177.0	38.34	188.2	.0408	1.420
#1	12.41	-.0076	1.707	.0097	.0134	-.0017	-.0087	2.357	.0043
#2	12.39	.0010	1.706	.0098	-.0015	-.0029	.0012	2.355	.0042

Zoom In Zoom Out

Sample Name: MC33244-6 Acquired: 9/4/2014 13:21:02 Type: Unk
Method: Accutest2(v139) Mode: CONC Corr. Factor: 10.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: 10X

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**7438.9**	**3855.4**	**151810.**	**19415.**
Stddev	1.8	1.7	27.	10.
%RSD	.02484	.04338	.01758	.05320
#1	7440.2	3854.2	151830.	19408.
#2	7437.6	3856.6	151790.	19422.

Zoom In Zoom Out

Sample Name: MC33244-9 Acquired: 9/4/2014 13:26:43 Type: Unk
Method: Accutest2(v139) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: 2X

Elem	Ag3280	Al3961	As1890	Au2427	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0013**	**.0389**	**-.0025**	**-.0063**	**.7550**	**.4603**	**.0001**	**.0030**	**583.4**
Stddev	.0002	.0079	.0003	.0006	.0025	.0011	.0000	.0041	4.4
%RSD	17.34	20.22	11.54	9.809	.3330	.2434	4.111	138.5	.7579
#1	.0011	.0333	-.0027	-.0068	.7533	.4595	.0001	.0059	586.6
#2	.0014	.0444	-.0023	-.0059	.7568	.4611	.0001	.0001	580.3

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.755**	**.0403**	**.0090**	**.2730**	**.6560**	**25.74**	**-.0230**	**44.62**	**3.696**
Stddev	.011	.0001	.0006	.0019	.0055	.04	.0002	.10	.001
%RSD	.3941	.2394	6.951	.6791	.8327	.1458	.8424	.2207	.0392
#1	2.748	.0404	.0095	.2717	.6521	25.72	-.0232	44.69	3.695
#2	2.763	.0403	.0086	.2744	.6598	25.77	-.0229	44.55	3.698

Elem	Mo2020	Na5895	Ni2316	Pb2203	Pd3404	Pt2659	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1128**	F **1473.**	**.9976**	**.0014**	**-.0032**	**-.0110**	F **47.41**	**-.0007**	**.0069**
Stddev	.0000	5.	.0006	.0002	.0012	.0014	.16	.0003	.0030
%RSD	.0003	.3662	.0595	11.97	35.93	12.55	.3354	47.98	43.51
#1	.1128	1477.	.9971	.0016	-.0024	-.0100	47.30	-.0010	.0048
#2	.1128	1470.	.9980	.0013	-.0041	-.0120	47.52	-.0005	.0090

Elem	Si2124	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	W_2079	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**11.37**	**.0008**	**1.227**	**.0030**	**.0014**	**.0004**	**.0062**	**.2783**	**.0039**
Stddev	.04	.0001	.001	.0005	.0012	.0005	.0020	.0003	.0001
%RSD	.3849	11.10	.1146	18.09	90.39	137.0	32.84	.1040	1.412
#1	11.34	.0009	1.226	.0026	.0022	.0008	.0048	.2781	.0039
#2	11.40	.0008	1.228	.0034	.0005	.0000	.0077	.2785	.0039

Zoom In Zoom Out

Sample Name: MC33244-9 Acquired: 9/4/2014 13:26:43 Type: Unk
Method: Accutest2(v139) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: 2X

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6421.4**	**3485.1**	**138110.**	**18841.**
Stddev	1.4	8.9	216.	5.
%RSD	.02198	.25498	.15672	.02535
#1	6422.4	3491.4	138260.	18838.
#2	6420.4	3478.8	137950.	18845.

Zoom In Zoom Out

Sample Name: CCV Acquired: 9/4/2014 13:32:28 Type: QC
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	Au2427	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2391**	**9.740**	**1.954**	**2.041**	**1.970**	**1.960**	**1.962**	**2.104**	**9.851**
Stddev	.0018	.082	.002	.014	.005	.011	.012	.004	.068
%RSD	.7409	.8375	.1199	.6819	.2354	.5663	.6266	.1773	.6894
#1	.2379	9.682	1.955	2.031	1.974	1.952	1.953	2.106	9.803
#2	.2404	9.798	1.952	2.050	1.967	1.968	1.970	2.101	9.899
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value									
Range									

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.944**	**1.946**	**1.868**	**2.039**	**9.546**	**9.367**	**2.075**	**9.340**	**1.995**
Stddev	.004	.005	.014	.017	.068	.068	.012	.048	.017
%RSD	.2083	.2340	.7601	.8376	.7087	.7266	.5839	.5140	.8457
#1	1.946	1.949	1.858	2.027	9.498	9.319	2.067	9.306	1.984
#2	1.941	1.943	1.878	2.052	9.594	9.416	2.084	9.374	2.007
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass
Value									
Range									

Elem	Mo2020	Na5895	Ni2316	Pb2203	Pd3404	Pt2659	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.986**	**9.753**	**2.011**	**1.933**	**1.988**	**1.974**	**1.963**	**2.020**	**1.983**
Stddev	.002	.071	.004	.003	.020	.011	.004	.005	.004
%RSD	.0885	.7276	.2205	.1625	1.005	.5626	.2084	.2254	.2038
#1	1.985	9.703	2.014	1.935	1.974	1.966	1.966	2.024	1.986
#2	1.988	9.803	2.008	1.931	2.002	1.982	1.960	2.017	1.980
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 9/4/2014 13:32:28 Type: QC
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2124	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	W_2079	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.082**	**2.070**	**2.133**	**1.959**	**1.952**	**2.035**	**1.948**	**1.898**	**1.989**
Stddev	.004	.005	.011	.016	.001	.018	.003	.005	.016
%RSD	.1937	.2634	.5207	.7956	.0538	.8621	.1309	.2478	.7951
#1	2.084	2.074	2.125	1.948	1.952	2.022	1.950	1.902	1.977
#2	2.079	2.066	2.141	1.971	1.951	2.047	1.947	1.895	2.000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**7955.3**	**4012.8**	**158440.**	**19531.**
Stddev	16.1	7.1	1150.	173.
%RSD	.20296	.17610	.72600	.88629
#1	7943.9	4007.8	159250.	19653.
#2	7966.8	4017.8	157630.	19408.

Zoom In Zoom Out

Sample Name: CCB Acquired: 9/4/2014 13:38:51 Type: QC
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	Au2427	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**.0028**	**-.0005**	**.0014**	**.0019**	**.0001**	**.0002**	**.0005**	**.0124**
Stddev	.0001	.0030	.0008	.0006	.0001	.0000	.0001	.0000	.0029
%RSD	39.64	109.2	172.1	40.68	7.967	33.52	33.64	3.094	23.08
#1	.0004	.0006	.0001	.0010	.0020	.0001	.0001	.0004	.0103
#2	.0002	.0049	-.0011	.0018	.0018	.0001	.0002	.0005	.0144
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**.0004**	**.0003**	**.0012**	**.0018**	**.0155**	**-.0002**	**-.0026**	**.0002**
Stddev	.0000	.0001	.0001	.0001	.0007	.0002	.0000	.0110	.0000
%RSD	7.319	29.82	23.51	6.691	39.40	1.118	2.455	431.3	8.223
#1	.0004	.0005	.0003	.0011	.0013	.0154	-.0002	-.0103	.0002
#2	.0003	.0003	.0004	.0013	.0023	.0156	-.0002	.0052	.0003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Mo2020	Na5895	Ni2316	Pb2203	Pd3404	Pt2659	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0047**	**.2341**	**.0004**	**.0008**	**-.0002**	**-.0017**	**.0016**	**.0002**	**.0004**
Stddev	.0007	.0027	.0001	.0003	.0003	.0025	.0001	.0003	.0012
%RSD	14.66	1.148	16.18	37.90	184.7	143.9	3.307	216.1	280.1
#1	.0052	.2360	.0003	.0010	-.0004	.0000	.0016	-.0001	-.0004
#2	.0042	.2322	.0004	.0006	.0001	-.0035	.0017	.0004	.0012
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: CCB Acquired: 9/4/2014 13:38:51 Type: QC
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2124	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	W_2079	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0036**	**.0006**	**.0002**	**.0006**	**.0003**	**-.0000**	**.0066**	F **.0079**	**.0013**
Stddev	.0004	.0003	.0000	.0003	.0001	.0000	.0007	.0001	.0000
%RSD	10.32	48.28	12.34	42.19	40.27	3449.	11.28	1.452	.6580
#1	.0038	.0008	.0001	.0004	.0002	.0000	.0071	.0078	.0013
#2	.0033	.0004	.0002	.0008	.0004	-.0000	.0061	.0080	.0013
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit								.0020	
Low Limit								-.0020	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**8379.9**	**4060.4**	**160340.**	**19435.**
Stddev	12.0	5.3	199.	155.
%RSD	.14282	.13089	.12393	.79963
#1	8388.3	4064.2	160480.	19326.
#2	8371.4	4056.7	160200.	19545.

Zoom In Zoom Out

Sample Name: CRIB Acquired: 9/4/2014 13:44:33 Type: QC
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	Au2427	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0053**	**.1917**	**.0105**	**.0515**	**.0993**	**.4813**	**.0039**	**.0531**	**4.815**
Stddev	.0001	.0052	.0003	.0008	.0007	.0060	.0000	.0005	.060
%RSD	2.653	2.715	2.518	1.557	.7106	1.246	.1045	.9579	1.255
#1	.0052	.1953	.0107	.0521	.0998	.4855	.0039	.0535	4.858
#2	.0054	.1880	.0103	.0509	.0988	.4771	.0039	.0528	4.772
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value									
Range									

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0039**	**.0488**	**.0098**	**.0260**	**.0965**	**4.515**	**.4902**	**4.571**	**.0155**
Stddev	.0000	.0001	.0002	.0006	.0004	.044	.0033	.040	.0003
%RSD	1.168	.1224	2.107	2.170	.4445	.9744	.6670	.8651	2.161
#1	.0038	.0489	.0099	.0264	.0968	4.546	.4925	4.599	.0157
#2	.0039	.0488	.0096	.0256	.0962	4.484	.4879	4.543	.0153
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass
Value									
Range									

Elem	Mo2020	Na5895	Ni2316	Pb2203	Pd3404	Pt2659	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1033**	**4.820**	**.0409**	**.0104**	**.0502**	**.0482**	**.0478**	**.0064**	**.0260**
Stddev	.0005	.044	.0000	.0002	.0013	.0000	.0014	.0001	.0007
%RSD	.4813	.9037	.0280	2.230	2.573	.0791	2.962	1.953	2.603
#1	.1030	4.851	.0409	.0103	.0511	.0482	.0468	.0064	.0265
#2	.1037	4.789	.0409	.0106	.0493	.0482	.0488	.0065	.0255
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CRIB Acquired: 9/4/2014 13:44:33 Type: QC
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2124	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	W_2079	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1071**	**.1026**	**.0104**	**.0487**	**.0047**	**.0101**	**.0532**	**.1018**	**.0501**
Stddev	.0003	.0007	.0001	.0009	.0007	.0002	.0004	.0002	.0008
%RSD	.2915	.6352	1.020	1.804	14.83	2.196	.6606	.2044	1.601
#1	.1073	.1021	.0105	.0493	.0042	.0102	.0530	.1017	.0506
#2	.1068	.1030	.0104	.0481	.0052	.0099	.0535	.1020	.0495
Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	None
Value									
Range									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**8168.7**	**4020.6**	**157470.**	**19468.**
Stddev	13.5	4.0	2279.	194.
%RSD	.16562	.09991	1.4472	.99667
#1	8178.2	4023.5	155860.	19331.
#2	8159.1	4017.8	159080.	19605.

Zoom In Zoom Out

Sample Name: ICSA Acquired: 9/4/2014 13:50:09 Type: QC
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	Au2427	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0019**	**499.6**	**-.0002**	**-.0108**	**.0012**	**.0006**	**-.0000**	**.0054**	**449.7**
Stddev	.0001	.3	.0015	.0008	.0007	.0001	.0000	.0014	4.7
%RSD	5.972	.0574	864.0	7.146	55.91	9.147	147.2	25.29	1.037
#1	-.0018	499.4	-.0012	-.0102	.0007	.0006	.0000	.0063	453.0
#2	-.0019	499.8	.0009	-.0113	.0016	.0006	-.0000	.0044	446.4
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0008**	**-.0004**	**.0003**	**-.0002**	**174.3**	**-.0517**	**.0059**	**490.1**	**.0234**
Stddev	.0000	.0003	.0003	.0001	.1	.0063	.0009	1.0	.0000
%RSD	6.266	74.36	86.38	25.38	.0381	12.14	15.20	.1996	.1511
#1	-.0007	-.0007	.0001	-.0003	174.3	-.0561	.0053	490.8	.0234
#2	-.0008	-.0002	.0005	-.0002	174.4	-.0473	.0066	489.4	.0235
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Mo2020	Na5895	Ni2316	Pb2203	Pd3404	Pt2659	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0026**	**.4943**	**-.0003**	**-.0001**	**-.0220**	**-.0108**	**.0146**	**-.0009**	**.0024**
Stddev	.0002	.0129	.0003	.0014	.0000	.0020	.0024	.0020	.0006
%RSD	5.960	2.607	89.05	979.6	.1727	18.44	16.13	213.9	23.57
#1	.0027	.4852	-.0001	.0008	-.0220	-.0094	.0163	-.0023	.0028
#2	.0025	.5034	-.0005	-.0011	-.0219	-.0122	.0130	.0005	.0020
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ICSA Acquired: 9/4/2014 13:50:09 Type: QC
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2124	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	W_2079	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0157**	**.0027**	**.0012**	**.0008**	**-.0017**	**-.0002**	**.0164**	**.0007**	**.0016**
Stddev	.0013	.0007	.0000	.0004	.0018	.0003	.0000	.0002	.0001
%RSD	8.515	27.27	.4861	57.28	107.3	128.0	.0597	27.80	4.805
#1	.0166	.0022	.0012	.0005	-.0004	-.0004	.0164	.0005	.0016
#2	.0147	.0032	.0012	.0011	-.0030	-.0000	.0164	.0008	.0017
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6581.9**	**3562.0**	**138430.**	**18545.**
Stddev	6.3	4.8	296.	65.
%RSD	.09642	.13565	.21351	.35304
#1	6586.4	3565.4	138220.	18499.
#2	6577.4	3558.6	138640.	18591.

Zoom In Zoom Out

Sample Name: ICSAB Acquired: 9/4/2014 13:55:52 Type: QC
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	Au2427	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.9903**	**500.7**	**2.005**	**.5177**	**.9656**	**.4729**	**.4760**	**.5257**	**451.9**
Stddev	.0029	1.1	.001	.0011	.0023	.0016	.0025	.0004	6.0
%RSD	.2920	.2097	.0436	.2063	.2343	.3315	.5227	.0800	1.335
#1	.9883	500.0	2.006	.5169	.9672	.4718	.4742	.5260	447.6
#2	.9924	501.5	2.005	.5184	.9640	.4740	.4777	.5254	456.1
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit									
Low Limit									

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.9956**	**.4625**	**.4388**	**.5329**	**174.6**	**-.0597**	**.5393**	**490.8**	**.5039**
Stddev	.0003	.0008	.0002	.0001	.9	.0196	.0002	2.2	.0007
%RSD	.0259	.1725	.0463	.0186	.5031	32.78	.0318	.4530	.1434
#1	.9954	.4620	.4386	.5329	173.9	-.0735	.5392	489.2	.5034
#2	.9957	.4631	.4389	.5328	175.2	-.0458	.5394	492.4	.5044
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Mo2020	Na5895	Ni2316	Pb2203	Pd3404	Pt2659	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.9198**	**.5218**	**.9368**	**.9023**	**.5377**	**.5066**	**.5072**	**2.120**	**2.036**
Stddev	.0031	.0098	.0006	.0013	.0002	.0002	.0008	.003	.002
%RSD	.3396	1.883	.0678	.1467	.0377	.0461	.1581	.1250	.0929
#1	.9176	.5148	.9372	.9032	.5375	.5064	.5066	2.122	2.038
#2	.9220	.5287	.9363	.9013	.5378	.5068	.5077	2.119	2.035
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ICSAB Acquired: 9/4/2014 13:55:52 Type: QC
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2124	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	W_2079	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.100**	**.9444**	**1.040**	**.4671**	**1.785**	**.4850**	**1.833**	**.8524**	**.3511**
Stddev	.002	.0011	.004	.0007	.002	.0011	.010	.0018	.0080
%RSD	.0805	.1115	.4177	.1580	.1187	.2187	.5481	.2164	2.276
#1	2.101	.9451	1.037	.4676	1.783	.4842	1.826	.8511	.3454
#2	2.099	.9436	1.043	.4666	1.786	.4857	1.840	.8537	.3567
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None
High Limit									
Low Limit									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6585.3**	**3563.9**	**138190.**	**18406.**
Stddev	6.1	1.1	252.	110.
%RSD	.09233	.03112	.18207	.59551
#1	6589.6	3564.7	138360.	18484.
#2	6581.0	3563.1	138010.	18329.

Zoom In Zoom Out

Sample Name: CCV Acquired: 9/4/2014 14:01:31 Type: QC
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	Au2427	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2387**	**9.616**	**1.941**	**2.052**	**1.957**	**1.940**	**1.954**	**2.089**	**9.848**
Stddev	.0005	.018	.003	.002	.002	.002	.002	.002	.004
%RSD	.2146	.1855	.1419	.1160	.1154	.0907	.0813	.0776	.0383
#1	.2390	9.628	1.939	2.054	1.956	1.941	1.955	2.087	9.846
#2	.2383	9.603	1.943	2.050	1.959	1.939	1.952	2.090	9.851
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value									
Range									

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.934**	**1.943**	**1.872**	**2.038**	**9.516**	**9.235**	**2.055**	**9.285**	**2.004**
Stddev	.002	.004	.003	.007	.014	.028	.003	.021	.001
%RSD	.1140	.1834	.1746	.3625	.1430	.2986	.1532	.2214	.0298
#1	1.933	1.940	1.874	2.043	9.507	9.255	2.057	9.300	2.004
#2	1.936	1.946	1.869	2.033	9.526	9.216	2.053	9.271	2.003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass
Value									
Range									

Elem	Mo2020	Na5895	Ni2316	Pb2203	Pd3404	Pt2659	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.979**	**9.704**	**2.011**	**1.934**	**1.986**	**1.979**	**1.957**	**2.008**	**1.971**
Stddev	.006	.008	.004	.002	.007	.003	.003	.004	.004
%RSD	.2993	.0793	.1791	.1210	.3794	.1562	.1644	.2025	.2299
#1	1.975	9.710	2.008	1.932	1.991	1.981	1.954	2.006	1.968
#2	1.983	9.699	2.013	1.936	1.980	1.976	1.959	2.011	1.975
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 9/4/2014 14:01:31 Type: QC
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2124	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	W_2079	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.076**	**2.066**	**2.122**	**1.957**	**1.946**	**2.040**	**1.949**	**1.897**	**2.019**
Stddev	.003	.003	.003	.001	.002	.001	.001	.004	.008
%RSD	.1408	.1666	.1160	.0635	.0962	.0561	.0506	.2201	.4040
#1	2.074	2.064	2.124	1.958	1.948	2.041	1.948	1.894	2.025
#2	2.078	2.069	2.121	1.956	1.945	2.039	1.949	1.900	2.014
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**7950.6**	**4021.5**	**157290.**	**19263.**
Stddev	6.1	1.4	374.	74.
%RSD	.07735	.03483	.23796	.38311
#1	7955.0	4022.4	157030.	19315.
#2	7946.3	4020.5	157560.	19211.

Zoom In Zoom Out

Sample Name: CCB Acquired: 9/4/2014 14:06:58 Type: QC
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	Au2427	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0048**	**-.0002**	**.0020**	**.0027**	**.0001**	**.0001**	**.0006**	**.0105**
Stddev	.0001	.0011	.0000	.0002	.0002	.0000	.0001	.0004	.0007
%RSD	112.2	22.11	6.468	9.461	8.475	29.89	67.94	63.20	6.558
#1	.0001	.0055	-.0002	.0019	.0028	.0001	.0000	.0003	.0100
#2	.0000	.0040	-.0002	.0022	.0025	.0002	.0001	.0008	.0110
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**.0003**	**.0003**	**.0010**	**.0023**	**.0228**	**-.0010**	**-.0209**	**.0002**
Stddev	.0002	.0000	.0000	.0001	.0001	.0055	.0002	.0161	.0000
%RSD	50.74	12.53	12.00	6.329	5.269	23.96	19.45	77.12	14.49
#1	.0004	.0004	.0003	.0010	.0024	.0189	-.0009	-.0323	.0002
#2	.0002	.0003	.0003	.0011	.0022	.0266	-.0011	-.0095	.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Mo2020	Na5895	Ni2316	Pb2203	Pd3404	Pt2659	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0060**	**.1699**	**.0003**	**.0008**	**.0004**	**-.0016**	**-.0019**	**.0004**	**-.0006**
Stddev	.0011	.0006	.0001	.0000	.0004	.0026	.0005	.0003	.0003
%RSD	17.93	.3253	28.49	2.859	101.0	160.7	24.02	72.03	46.27
#1	.0067	.1695	.0002	.0008	.0007	-.0034	-.0023	.0006	-.0008
#2	.0052	.1703	.0004	.0008	.0001	.0002	-.0016	.0002	-.0004
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: CCB Acquired: 9/4/2014 14:06:58 Type: QC
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2124	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	W_2079	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0008**	**.0004**	**.0000**	**.0006**	**.0010**	**-.0001**	F **.0111**	**.0002**	**.0017**
Stddev	.0007	.0001	.0001	.0000	.0009	.0002	.0017	.0000	.0000
%RSD	84.13	29.60	158.2	1.197	83.73	215.1	14.85	1.637	1.806
#1	-.0003	.0005	-.0000	.0006	.0004	-.0002	.0123	.0002	.0018
#2	-.0013	.0003	.0001	.0006	.0016	.0000	.0100	.0002	.0017
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit							.0100		
Low Limit							-.0100		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**8409.9**	**4083.5**	**160450.**	**19378.**
Stddev	6.2	2.6	728.	61.
%RSD	.07320	.06390	.45354	.31372
#1	8414.3	4085.4	159940.	19421.
#2	8405.6	4081.7	160970.	19335.

	Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
	Ag 328.068 {103}	☒	10	Fe	-0.000263	0.000000	No
				Mn	0.000131	0.000000	No
				Ti	-0.000091	0.000000	No
				V	-0.000283	0.000000	No
				Cu	-0.000042	0.000000	No
				Mo	-0.000120	0.000000	No
				Zr	0.003220	0.000000	No
				Al	-0.000001	0.000000	No
				Ca	-0.000002	0.000000	No
				Mg	-0.000001	0.000000	No
	Al 396.152 { 85}	☒	4	Na	0.000009	0.000000	No
				Mo	0.035140	0.000000	No
				Mn	-0.000198	0.000000	No
				Ca	-0.000008	0.000000	No
	As 189.042 {478}	☒	15	Fe	-0.000010	0.000000	No
				Mg	0.000001	0.000000	No
				Ca	-0.000003	0.000000	No
				Na	0.000002	0.000000	No
				Mn	0.000014	0.000000	No
				Co	-0.000870	0.000000	No
				Cr	0.000578	0.000000	No
				Mo	0.001363	0.000000	No
				Ti	-0.000031	0.000000	No
				V	0.000177	0.000000	No
				Al	0.000002	0.000000	No
				Pd	0.029777	0.000000	No
				Zr	0.000110	0.000000	No
				B	-0.000051	0.000000	No
				W	0.001461	0.000000	No
	Au 242.795 {139}	☒	3	Fe	0.000444	0.000000	No
				Mn	0.007057	0.000000	No
				W	-0.000213	0.000000	No
	B 208.959 {462}	☒	5	Si	0.000676	0.000000	No
				Mo	0.019918	0.000000	No
				Ti	0.000480	0.000000	No
				V	0.001000	0.000000	No
				W	-0.000376	0.000000	No
	Ba 455.403 { 74}	☒	1	Ca	0.000010	0.000000	No
	Be 313.042 {108}	☒	2	Ti	-0.000350	0.000000	No
				V	0.000137	0.000000	No
	Bi 223.061 {451}	☒	7	Fe	0.000031	0.000000	No
				Co	-0.002919	0.000000	No
				Cr	0.001095	0.000000	No
				Ti	-0.001595	0.000000	No
				V	-0.001151	0.000000	No
				Cu	-0.002887	0.000000	No
				W	-0.002446	0.000000	No
	Ca 317.933 {106}	☒	2	Al	0.000075	0.000000	No
				Mg	0.000046	0.000000	No
	Cd 228.802 {448}	☒	7	Fe	0.000025	0.000000	No
				Mg	0.000005	0.000000	No
				Co	-0.001945	0.000000	No
				Ni	-0.000168	0.000000	No
				Ca	0.000000	0.000000	No
				V	0.000084	0.000000	No
				W	-0.000853	0.000000	No
	Co 228.616 {448}	☒	4	Fe	0.000028	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Mo	-0.000377	0.000000	No
			Ti	0.002025	0.000000	No
			Mg	0.000002	0.000000	No
Cr 267.716 {126}	☒	5	Cu	0.000181	0.000000	No
			Al	0.000003	0.000000	No
			Fe	-0.000007	0.000000	No
			Mn	0.000190	0.000000	No
			W	0.000467	0.000000	No
Cu 324.754 {104}2	☒	8	Fe	-0.000087	0.000000	No
			Co	-0.000742	0.000000	No
			Mo	0.000085	0.000000	No
			V	-0.000173	0.000000	No
			Zr	-0.001600	0.000000	No
			Mn	0.000049	0.000000	No
			Ca	0.000003	0.000000	No
			Ti	-0.000002	0.000000	No
Fe 259.940 {130}	☒	None				
In 230.606 {446}*	☒	None				
K 766.490 { 44}	☒	1	Na	0.000226	0.000000	No
Li 670.784 { 50}	☒	2	Ca	0.000024	0.000000	No
			Na	0.000048	0.000000	No
Mg 279.079 {121}	☒	2	Fe	-0.000180	0.000000	No
			Mo	-0.009670	0.000000	No
Mn 257.610 {131}	☒	3	Fe	-0.000143	0.000000	No
			Ca	0.000003	0.000000	No
			Si	0.000235	0.000000	No
Mo 202.030 {467}	☒	8	Al	-0.000002	0.000000	No
			Mg	-0.000002	0.000000	No
			Ca	0.000001	0.000000	No
			Na	-0.000007	0.000000	No
			Mn	-0.000036	0.000000	No
			Co	0.000002	0.000000	No
			Cu	0.000020	0.000000	No
			Ni	0.000009	0.000000	No
Na 589.592 { 57}	☒	1	Al	0.000506	0.000000	No
Ni 231.604 {446}	☒	5	Co	-0.000195	0.000000	No
			Mo	0.000025	0.000000	No
			Fe	0.000032	0.000000	No
			Al	0.000000	0.000000	No
			Ca	-0.000001	0.000000	No
Pb 220.353 {453}	☒	15	Fe	0.000041	0.000000	No
			Al	-0.000067	0.000000	No
			Si	0.000089	0.000000	No
			Co	0.000046	0.000000	No
			Cu	0.000283	0.000000	No
			Ni	0.000062	0.000000	No
			Mo	-0.000999	0.000000	No
			Mg	0.000000	0.000000	No
			Ca	-0.000008	0.000000	No
			Mn	0.000130	0.000000	No
			S	0.000005	0.000000	No
			Na	-0.000001	0.000000	No
			Ti	-0.000310	0.000000	No
			V	-0.000057	0.000000	No
			W	-0.002172	0.000000	No
Pd 340.458 { 99}	☒	4	Fe	-0.000296	0.000000	No
			Ca	-0.000017	0.000000	No

	Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
				Co	-0.004231	0.000000	No
				Ti	-0.000574	0.000000	No
	Pt 265.945 {127}	☒	7	Fe	-0.000028	0.000000	No
				Al	-0.000018	0.000000	No
				Mn	-0.001394	0.000000	No
				Cr	0.004108	0.000000	No
				Mo	-0.001488	0.000000	No
				V	-0.008690	0.000000	No
				W	-0.000924	0.000000	No
	S 182.034 {485}	☒	8	Fe	0.000582	0.000000	No
				Al	-0.000004	0.000000	No
				Mg	-0.000007	0.000000	No
				Ca	-0.000026	0.000000	No
				Mn	0.002100	0.000000	No
				Mo	-0.004370	0.000000	No
				Ti	0.000201	0.000000	No
				W	-0.024551	0.000000	No
	Sb 206.833 {463}	☒	13	Fe	0.000000	0.000000	No
				Al	-0.000026	0.000000	No
				Mg	-0.000002	0.000000	No
				Ca	0.000000	0.000000	No
				Cr	0.008388	0.000000	No
				Ni	0.000009	0.000000	No
				Mo	-0.000056	0.000000	No
				Cu	0.000141	0.000000	No
				Sn	-0.005930	0.000000	No
				Zr	-0.000420	0.000000	No
				Ti	-0.000472	0.000000	No
				V	-0.001796	0.000000	No
				W	-0.000497	0.000000	No
	Se 196.090 {472}	☒	14	Fe	-0.000390	0.000000	No
				Al	-0.000000	0.000000	No
				Mg	-0.000001	0.000000	No
				Ca	-0.000009	0.000000	No
				Na	-0.000002	0.000000	No
				Co	-0.001060	0.000000	No
				Ni	-0.000130	0.000000	No
				Mn	0.000576	0.000000	No
				Sn	0.000400	0.000000	No
				Pd	-0.001226	0.000000	No
				V	-0.000091	0.000000	No
				Mo	0.000019	0.000000	No
				Ti	-0.000162	0.000000	No
				W	0.008850	0.000000	No
	Si 212.412 {459}	☒	4	Al	0.000049	0.000000	No
				Mo	0.024726	0.000000	No
				Ti	0.008351	0.000000	No
				V	0.028014	0.000000	No
	Sn 189.989 {478}	☒	1	Ti	-0.002079	0.000000	No
	Sr 407.771 { 83}	☒	None				
	Ti 334.904 {101}	☒	3	Mo	0.000248	0.000000	No
				Ca	0.000004	0.000000	No
				Al	0.000006	0.000000	No
	Tl 190.856 {477}	☒	11	Al	-0.000002	0.000000	No
				Mg	-0.000001	0.000000	No
				Ca	-0.000000	0.000000	No
				Na	-0.000002	0.000000	No

	Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
				Mn	0.000744	0.000000	No
				Co	0.001406	0.000000	No
				Cr	0.000129	0.000000	No
				Ti	-0.002663	0.000000	No
				V	-0.035936	0.000000	No
				Fe	0.000005	0.000000	No
				Mo	0.000061	0.000000	No
	V 292.402 {115}	☒	5	Fe	0.000022	0.000000	No
				Mn	-0.000115	0.000000	No
				Cr	-0.002171	0.000000	No
				Mo	-0.006182	0.000000	No
				Ti	0.000602	0.000000	No
	W 207.911 {462}	☒	7	Co	-0.000470	0.000000	No
				Cr	-0.000390	0.000000	No
				Cu	-0.000430	0.000000	No
				Ni	-0.000440	0.000000	No
				Ti	-0.000410	0.000000	No
				V	-0.000520	0.000000	No
				Zn	0.014748	0.000000	No
	Y 224.306 {451}*	☒	None				
	Y 360.073 { 94}*	☒	None				
	Y 371.030 { 91}*	☒	None				
	Zn 206.200 {464}	☒	7	Mg	0.000002	0.000000	No
				Al	0.000003	0.000000	No
				Ca	0.000002	0.000000	No
				Na	0.000004	0.000000	No
				Cr	-0.000410	0.000000	No
				Ti	0.000095	0.000000	No
				Fe	-0.000000	0.000000	No
	Zr 339.198 { 99}	☒	5	Fe	-0.000043	0.000000	No
				Ti	0.002216	0.000000	No
				V	0.003207	0.000000	No
				Mo	0.000594	0.000000	No
				S	-0.000027	0.000000	No

Element, Wavelength and Order	Date of Fit	Date of Cal.	Type of Fit	Weighting	A0	A1	A2	n (Exponent)
Ag 328.068 {103}	9/4/2014 11:39:48	9/4/2014 8:31:38	Linear	1/Conc	-0.000106	0.128115	0.000000	1.000000
Al 396.152 { 85}	9/4/2014 11:39:48	9/4/2014 8:31:38	Linear	1/Conc	0.000026	0.046452	0.000000	1.000000
As 189.042 {478}	9/4/2014 11:39:48	9/4/2014 8:31:38	Linear	1/Conc	-0.000000	0.126930	0.000000	1.000000
Au 242.795 {139}	9/4/2014 11:39:48	9/4/2014 8:31:38	Linear	1/Conc	-0.000020	0.027408	0.000000	1.000000
B 208.959 {462}	9/4/2014 11:39:48	9/4/2014 8:31:38	Linear	1/Conc	0.000436	0.236835	0.000000	1.000000
Ba 455.403 { 74}	9/4/2014 11:39:48	9/4/2014 8:31:38	Linear	1/Conc	-0.000328	2.645708	0.000000	1.000000
Be 313.042 {108}	9/4/2014 11:39:48	9/4/2014 8:31:38	Linear	1/Conc	-0.000043	2.354431	0.000000	1.000000
Bi 223.061 {451}	9/4/2014 11:39:48	9/4/2014 8:31:38	Linear	1/Conc	0.000261	0.279274	0.000000	1.000000
Ca 317.933 {106}	9/4/2014 11:39:48	9/4/2014 8:31:38	Linear	1/Conc	0.001390	0.049953	0.000000	1.000000
Cd 228.802 {448}	9/4/2014 11:39:48	9/4/2014 8:31:38	Linear	1/Conc	0.000340	1.154597	0.000000	1.000000
Co 228.616 {448}	9/4/2014 11:39:48	9/4/2014 8:31:38	Linear	1/Conc	-0.000168	0.557859	0.000000	1.000000
Cr 267.716 {126}	9/4/2014 11:39:48	9/4/2014 8:31:38	Linear	1/Conc	-0.000001	0.079032	0.000000	1.000000
Cu 324.754 {104}2	9/4/2014 11:39:48	9/4/2014 8:31:38	Linear	1/Conc	0.001236	0.270892	0.000000	1.000000
Fe 259.940 {130}	9/4/2014 11:39:48	9/4/2014 8:31:38	Linear	1/Conc	0.000270	0.050437	0.000000	1.000000
In 230.606 {446}*	9/4/2014 11:39:48	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
K 766.490 { 44}	9/4/2014 11:39:48	9/4/2014 8:31:38	Linear	1/Conc	0.001518	0.028843	0.000000	1.000000
Li 670.784 { 50}	9/4/2014 11:39:48	9/4/2014 8:31:38	Linear	1/Conc	0.002531	0.871606	0.000000	1.000000
Mg 279.079 {121}	9/4/2014 11:39:48	9/4/2014 8:31:38	Linear	1/Conc	-0.000009	0.004675	0.000000	1.000000
Mn 257.610 {131}	9/4/2014 11:39:48	9/4/2014 8:31:38	Linear	1/Conc	0.000119	0.609351	0.000000	1.000000
Mo 202.030 {467}	9/4/2014 11:39:48	9/4/2014 8:31:38	Linear	1/Conc	0.000253	0.990432	0.000000	1.000000
Na 589.592 { 57}	9/4/2014 11:39:48	9/4/2014 8:31:38	Linear	1/Conc	0.003171	0.134028	0.000000	1.000000
Ni 231.604 {446}	9/4/2014 11:39:48	9/4/2014 8:31:38	Linear	1/Conc	-0.000329	0.450280	0.000000	1.000000
Pb 220.353 {453}	9/4/2014 11:39:48	9/4/2014 8:31:38	Linear	1/Conc	-0.000523	0.177652	0.000000	1.000000
Pd 340.458 { 99}	9/4/2014 11:39:48	9/4/2014 8:31:38	Linear	1/Conc	-0.000102	0.058685	0.000000	1.000000
Pt 265.945 {127}	9/4/2014 11:39:48	9/4/2014 8:31:38	Linear	1/Conc	-0.000079	0.008514	0.000000	1.000000
S 182.034 {485}	9/4/2014 11:39:48	9/4/2014 8:31:38	Linear	1/Conc	0.000054	0.069658	0.000000	1.000000
Sb 206.833 {463}	9/4/2014 11:39:48	9/4/2014 8:31:38	Linear	1/Conc	-0.000585	0.198296	0.000000	1.000000
Se 196.090 {472}	9/4/2014 11:39:48	9/4/2014 8:31:38	Linear	1/Conc	0.000252	0.091528	0.000000	1.000000
Si 212.412 {459}	9/4/2014 11:39:48	9/4/2014 8:31:38	Linear	1/Conc	0.008912	0.279825	0.000000	1.000000
Sn 189.989 {478}	9/4/2014 11:39:48	9/4/2014 8:31:38	Linear	1/Conc	-0.000021	0.209063	0.000000	1.000000
Sr 407.771 { 83}	9/4/2014 11:39:48	9/4/2014 8:31:38	Linear	1/Conc	-0.002410	4.945551	0.000000	1.000000
Ti 334.904 {101}	9/4/2014 11:39:48	9/4/2014 8:31:38	Linear	1/Conc	-0.000245	0.151553	0.000000	1.000000
Tl 190.856 {477}	9/4/2014 11:39:48	9/4/2014 8:31:38	Linear	1/Conc	-0.000227	0.070892	0.000000	1.000000
V 292.402 {115}	9/4/2014 11:39:48	9/4/2014 8:31:38	Linear	1/Conc	0.000100	0.126284	0.000000	1.000000
W 207.911 {462}	9/4/2014 11:39:48	9/4/2014 8:31:38	Linear	1/Conc	0.001707	0.369625	0.000000	1.000000
Y 224.306 {451}*	9/4/2014 11:39:48	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
Y 360.073 { 94}*	9/4/2014 11:39:48	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
Y 371.030 { 91}*	9/4/2014 11:39:48	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
Zn 206.200 {464}	9/4/2014 11:39:48	9/4/2014 8:31:38	Linear	1/Conc	0.000267	1.030016	0.000000	1.000000
Zr 339.198 { 99}	9/4/2014 11:39:48	9/4/2014 8:31:38	Linear	1/Conc	-0.000181	0.370059	0.000000	1.000000

	Element, Wavelength and Order	Correlation	Std Error of Est	Predicted MDL	Predicted MQL	Status	Reslope		QC Norm	
							Slope	Y-int	Slope factor	Offset
	Ag 328.068 {103}	1.000000	0.000000	0.000385	0.001282	OK.	1.000000	0.000000	1	0
	Al 396.152 { 85}	1.000000	0.000000	0.007250	0.024166	OK.	1.000000	0.000000	1	0
	As 189.042 {478}	1.000000	0.000000	0.000909	0.003029	OK.	1.000000	0.000000	1	0
	Au 242.795 {139}	1.000000	0.000000	0.000767	0.002556	OK.	1.000000	0.000000	1	0
	B 208.959 {462}	1.000000	0.000000	0.000461	0.001535	OK.	1.000000	0.000000	1	0
	Ba 455.403 { 74}	1.000000	0.000000	0.000178	0.000594	OK.	1.000000	0.000000	1	0
	Be 313.042 {108}	1.000000	0.000000	0.000060	0.000201	OK.	1.000000	0.000000	1	0
	Bi 223.061 {451}	1.000000	0.000000	0.000874	0.002915	OK.	1.000000	0.000000	1	0
	Ca 317.933 {106}	1.000000	0.000000	0.003233	0.010777	OK.	1.000000	0.000000	1	0
	Cd 228.802 {448}	1.000000	0.000000	0.000125	0.000415	OK.	1.000000	0.000000	1	0
	Co 228.616 {448}	1.000000	0.000000	0.000147	0.000489	OK.	1.000000	0.000000	1	0
	Cr 267.716 {126}	1.000000	0.000000	0.000318	0.001059	OK.	1.000000	0.000000	1	0
	Cu 324.754 {104}2	1.000000	0.000000	0.000241	0.000805	OK.	1.000000	0.000000	1	0
	Fe 259.940 {130}	1.000000	0.000000	0.001765	0.005883	OK.	1.000000	0.000000	1	0
	In 230.606 {446}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
	K 766.490 { 44}	1.000000	0.000000	0.030197	0.100658	OK.	1.000000	0.000000	1	0
	Li 670.784 { 50}	1.000000	0.000000	0.000967	0.003225	OK.	1.000000	0.000000	1	0
	Mg 279.079 {121}	1.000000	0.000000	0.021474	0.071580	OK.	1.000000	0.000000	1	0
	Mn 257.610 {131}	1.000000	0.000000	0.000040	0.000133	OK.	1.000000	0.000000	1	0
	Mo 202.030 {467}	1.000000	0.000000	0.000138	0.000459	OK.	1.000000	0.000000	1	0
	Na 589.592 { 57}	1.000000	0.000000	0.005788	0.019292	OK.	1.000000	0.000000	1	0
	Ni 231.604 {446}	1.000000	0.000000	0.000210	0.000699	OK.	1.000000	0.000000	1	0
	Pb 220.353 {453}	1.000000	0.000000	0.000747	0.002490	OK.	1.000000	0.000000	1	0
	Pd 340.458 { 99}	1.000000	0.000000	0.000921	0.003071	OK.	1.000000	0.000000	1	0
	Pt 265.945 {127}	1.000000	0.000000	0.003003	0.010011	OK.	1.000000	0.000000	1	0
	S 182.034 {485}	1.000000	0.000000	0.001533	0.005108	OK.	1.000000	0.000000	1	0
	Sb 206.833 {463}	1.000000	0.000000	0.000794	0.002648	OK.	1.000000	0.000000	1	0
	Se 196.090 {472}	1.000000	0.000000	0.001369	0.004565	OK.	1.000000	0.000000	1	0
	Si 212.412 {459}	1.000000	0.000000	0.000557	0.001856	OK.	1.000000	0.000000	1	0
	Sn 189.989 {478}	1.000000	0.000000	0.000450	0.001501	OK.	1.000000	0.000000	1	0
	Sr 407.771 { 83}	1.000000	0.000000	0.000062	0.000206	OK.	1.000000	0.000000	1	0
	Ti 334.904 {101}	1.000000	0.000000	0.000295	0.000983	OK.	1.000000	0.000000	1	0
	Tl 190.856 {477}	1.000000	0.000000	0.000882	0.002941	OK.	1.000000	0.000000	1	0
	V 292.402 {115}	1.000000	0.000000	0.000260	0.000866	OK.	1.000000	0.000000	1	0
	W 207.911 {462}	1.000000	0.000000	0.000722	0.002406	OK.	1.000000	0.000000	1	0
	Y 224.306 {451}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
	Y 360.073 { 94}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
	Y 371.030 { 91}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
	Zn 206.200 {464}	1.000000	0.000000	0.000115	0.000384	OK.	1.000000	0.000000	1	0
	Zr 339.198 { 99}	1.000000	0.000000	0.000135	0.000450	OK.	1.000000	0.000000	1	0

ACCUTEST

Date:	09/03/14
Time	10:33

Name:	KERRYR
MP Batch ID:	MP23556
QC Sample ID:	MC33270-1A

Reagent Lot #	
1:1 HNO3	
1:1 HCl	RGT-41860-METALS
Conc HNO3	VENDOR-14860
Conc HCl	
H2O2	
LCS Lot #	
Digetion Tube Lot #	1404094

Aqueous EPA 200.7/ 200.8	○
Aqueous SW846 3010A	◉
Soil SW846 3050B	○

TCLP

ML Used	Spike Lot#
0.5	METSTK-1158-METALS
Spike ID	MPICP

Dig Block ID:	4	Therm ID	GN017	Temp. C	95	Factor	-1	Corrected Temp. C	94
Dig Block ID:		Therm ID		Temp. C		Factor		Corrected Temp. C	
Balance ID:	N/A	Repipetor ID	1	Filter Paper Lot #					

Note: (A)Serial dilution shown for QC purposes only (not a seperate digestion). (B) For DW samples <1NTU, measure pH prior to analysis.

Bot#	Sample #	Initial ML	Final ML			1:1 HNO3 ML	Conc. HNO3 ML	1:1 HCl ML	H2O2 ML	Comment
	MP23556-LB1	50	50				3	5		LB @ 09/03/14
	MP23556-MB1	50	50				3	5		
	MP23556-B1	50	50				3	5		
	MP23556-S1	50	50				3	5		
	MP23556-SD1	50	50				3	5		
	MP23556-S2	50	50				3	5		
	MP23556-LS1	50	50				3	5		JB75106-1A
	JB75106-1A	50	50				3	5		
	MC32861-4R	50	50				3	5		
	MC33121-5R	50	50				3	5		
	MC33244-1	50	50				3	5		
	MC33244-10	50	50				3	5		
	MC33244-11	50	50				3	5		
	MC33244-2	50	50				3	5		
	MC33244-3	50	50				3	5		
	MC33244-4	50	50				3	5		
	MC33244-5	50	50				3	5		
	MC33244-6	50	50				3	5		
	MC33244-7	50	50				3	5		
	MC33244-8	50	50				3	5		
	MC33244-9	50	50				3	5		
	MC33246-1A	50	50				3	5		
	MC33270-1A	50	50				3	5		
	MC33270-2A	50	50				3	5		

Protected Worksheet MMP003-03 QC Review VickyY Date: 09/04/14

(Format edits must be done by Dept. Manager)

7.3.1

7

ACCUTEST

Date: 09/03/14

Name:	EDOUARDA
MP Batch ID:	**MP23558**
QC Sample ID:	MC33270-1A

Reagent Lot #	
Pot.Permanganate	RGT-42159-HG
Pot. Persulfate	RGT-41927-HG
Hydroxylamine.SO4	RGT42136-HG
Stannous Chloride	RGT-42225-HG
Conc. HCl	N/A
Conc. HNO3	VENDOR-14860
Conc. H2SO4	VENDOR-14810

HG AQ: SW846 7470A	◉
HG AQ: EPA 245.1	○
Soil- SW846 7471B	○

TCLP

Misc.	
Dig. Tube Lot #	**1404094**
Filter Paper Lot #	N/A
LCS Lot #	N/A
ML Used	**Spike Lot#**
0.6	METSTD-34945-HG-2
Spike ID	HGRWS1

Note: A) EPA 245.1 Method, calibration standards are prepared without heating. B) Stannous sulfate may be used in place of stannous chloride.

Dig Block ID:	1	**Therm ID**	GN011	**Temp. C**	94	**Factor**	-1	**Corrected Temp C**	93
Dig Block ID:		**Therm ID**		**Temp. C**		**Factor**		**Corrected Temp C**	
Dig Block ID:	1	**Start Time**	10:30	**End Time**	12:30	**Balance ID**	N/A		
Dig Block ID:		**Start Time**		**End Time**		**Pipet ID**	1		

Bot #	Sample #	Initial ML	Final ML	H2SO4 ML	HNO3 ML	HCl ML	Pot. Perm ML	Pot. Pers ML	Hydrox ML	Comment ML of	Comment Lot#	
	RB	20	20	1	0.5	N/A	3	1.6	1.2			
	STD#1	20	20	1	0.5	N/A	3	1.6	1.2	4	METSTD-34945-	HG-3
	STD#2	20	20	1	0.5	N/A	3	1.6	1.2	10	METSTD-34945-	HG-3
	STD#3	20	20	1	0.5	N/A	3	1.6	1.2	2	METSTD-34945-	HG-2
	STD#4	20	20	1	0.5	N/A	3	1.6	1.2	4	METSTD-34945-	HG-2
	STD#5	20	20	1	0.5	N/A	3	1.6	1.2	6	METSTD-34945-	HG-2
	STD#6	20	20	1	0.5	N/A	3	1.6	1.2	8	METSTD-34945-	HG-2
	STD#7	20	20	1	0.5	N/A	3	1.6	1.2	10	METSTD-34945-	HG-2
	STD#8	20	20	1	0.5	N/A	3	1.6	1.2	12	METSTD-34945-	HG-2
	ICV	20	20	1	0.5	N/A	3	1.6	1.2	8	METSTD-34946-	HG-2
	CCV	20	20	1	0.5	N/A	3	1.6	1.2	6	METSTD-34945-	HG-2
	CRI	20	20	1	0.5	N/A	3	1.6	1.2	4	METSTD-34945-	HG-3
	ICB	20	20	1	0.5	N/A	3	1.6	1.2			
	CCB	20	20	1	0.5	N/A	3	1.6	1.2			
	MP23558-LB2	20	20	1	0.5	N/A	3	1.6	1.2	TCLP LB @ 8/29/14		
	MP23558-LB1	20	20	1	0.5	N/A	3	1.6	1.2	TCLP LB @ 9/03/14		
	MP23558-MB1	20	20	1	0.5	N/A	3	1.6	1.2			
	MP23558-B1	20	20	1	0.5	N/A	3	1.6	1.2			
	MP23558-S1	20	20	1	0.5	N/A	3	1.6	1.2			
	MP23558-LS1	20	20	1	0.5	N/A	3	1.6	1.2	0.6	34945	HG-2
	MP23558-B2	20	20	1	0.5	N/A	3	1.6	1.2			
	MP23558-S2	20	20	1	0.5	N/A	3	1.6	1.2			
	MP23558-LS2	20	20	1	0.5	N/A	3	1.6	1.2	0.6	34930	HG-2
	JB75106-1A	20	20	1	0.5	N/A	3	1.6	1.2			
	MC32861-4R	20	20	1	0.5	N/A	3	1.6	1.2			
	MC33121-5R	20	20	1	0.5	N/A	3	1.6	1.2			
	MC33191-1A	20	20	1	0.5	N/A	3	1.6	1.2			
	MC33244-1	20	20	1	0.5	N/A	3	1.6	1.2			
	MC33244-10	20	20	1	0.5	N/A	3	1.6	1.2			
	MC33244-11	20	20	1	0.5	N/A	3	1.6	1.2			
	MC33244-2	20	20	1	0.5	N/A	3	1.6	1.2			

	MC33244-3	20	20	1	0.5	N/A	3	1.6	1.2	
	MC33244-4	20	20	1	0.5	N/A	3	1.6	1.2	
	MC33244-5	20	20	1	0.5	N/A	3	1.6	1.2	
	MC33244-6	20	20	1	0.5	N/A	3	1.6	1.2	
	MC33244-7	20	20	1	0.5	N/A	3	1.6	1.2	
	MC33244-8	20	20	1	0.5	N/A	3	1.6	1.2	
	MC33244-9	20	20	1	0.5	N/A	3	1.6	1.2	
	MC33270-1A	20	20	1	0.5	N/A	3	1.6	1.2	
	MC33270-2A	20	20	1	0.5	N/A	3	1.6	1.2	

Additional Comment:	**MP23558-LS1: JB75106-1A**
MP23558-LS2: MC33191-1A	

Protected Worksheet MMA015-04 QC Review SarahA Date: 09/03/14

(Format edits must be done by Dept. Manager)

New England ACCUTEST LABORATORIES

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries
- Percent Solids Raw Data Summary

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Cyanide Reactivity	GP18082/GN48138	1.5	0.0	mg/kg	250	27.7	11.1	-%
Sulfide Reactivity	GP18083/GN48140	50	0.0	mg/kg	450	400	88.9	-%

Associated Samples:
Batch GP18082: MC33244-1, MC33244-2, MC33244-3, MC33244-4, MC33244-5, MC33244-6, MC33244-7, MC33244-8, MC33244-9, MC33244-10, MC33244-11
Batch GP18083: MC33244-1, MC33244-2, MC33244-3, MC33244-4, MC33244-5, MC33244-6, MC33244-7, MC33244-8, MC33244-9, MC33244-10, MC33244-11
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Corrosivity as pH	GN48144	MC33244-1		7.6	7.6	0.0	0-%
Cyanide Reactivity	GP18082/GN48138	MC33244-1	mg/kg	0.0	0.0	0.0	0-20%
Ignitability (Flashpoint)	GN48058	MC32226-1R	Deg. F	>230	>230	0.0	0-20%
Ignitability (Flashpoint)	GN48156	MC33244-11	Deg. F	>230	>230	0.0	0-20%
Solids, Percent	GN48139	MC33240-1	%	79.8	80.3	0.6	0-20%
Sulfide Reactivity	GP18083/GN48140	MC33244-1	mg/kg	0.0	0.0	0.0	0-20%

Associated Samples:
Batch GN48058: MC33244-1, MC33244-2, MC33244-3, MC33244-4, MC33244-5, MC33244-6, MC33244-7, MC33244-8, MC33244-9, MC33244-10
Batch GN48139: MC33244-1, MC33244-2, MC33244-3, MC33244-4, MC33244-5, MC33244-6, MC33244-7, MC33244-8, MC33244-9, MC33244-10, MC33244-11
Batch GN48144: MC33244-1, MC33244-2, MC33244-3, MC33244-4, MC33244-5, MC33244-6, MC33244-7, MC33244-8, MC33244-9, MC33244-10, MC33244-11
Batch GN48156: MC33244-11
Batch GP18082: MC33244-1, MC33244-2, MC33244-3, MC33244-4, MC33244-5, MC33244-6, MC33244-7, MC33244-8, MC33244-9, MC33244-10, MC33244-11
Batch GP18083: MC33244-1, MC33244-2, MC33244-3, MC33244-4, MC33244-5, MC33244-6, MC33244-7, MC33244-8, MC33244-9, MC33244-10, MC33244-11
(*) Outside of QC limits

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Cyanide Reactivity	GP18082/GN48138	MC33244-1	mg/kg	0.0	279	28.3	10.2	-%
Sulfide Reactivity	GP18083/GN48140	MC33244-1	mg/kg	0.0	502	390	77.7	-%

Associated Samples:
Batch GP18082: MC33244-1, MC33244-2, MC33244-3, MC33244-4, MC33244-5, MC33244-6, MC33244-7, MC33244-8, MC33244-9, MC33244-10, MC33244-11
Batch GP18083: MC33244-1, MC33244-2, MC33244-3, MC33244-4, MC33244-5, MC33244-6, MC33244-7, MC33244-8, MC33244-9, MC33244-10, MC33244-11
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

Percent Solids Raw Data Summary

Job Number: MC33244
Account: WSPVAR WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

Sample: MC33244-1 **Analyzed:** 02-SEP-14 by HS **Method:** SM21 2540 B MOD.
ClientID: MH-C3

Wet Weight (Total)	26.961	g
Tare Weight	19.448	g
Dry Weight (Total)	26.184	g
Solids, Percent	89.7	%

Sample: MC33244-2 **Analyzed:** 02-SEP-14 by HS **Method:** SM21 2540 B MOD.
ClientID: MH-A1

Wet Weight (Total)	30.221	g
Tare Weight	22.787	g
Dry Weight (Total)	28.746	g
Solids, Percent	80.2	%

Sample: MC33244-3 **Analyzed:** 02-SEP-14 by HS **Method:** SM21 2540 B MOD.
ClientID: MH-A2

Wet Weight (Total)	34.896	g
Tare Weight	26.084	g
Dry Weight (Total)	30.746	g
Solids, Percent	52.9	%

Sample: MC33244-4 **Analyzed:** 02-SEP-14 by HS **Method:** SM21 2540 B MOD.
ClientID: MH-A20

Wet Weight (Total)	27.917	g
Tare Weight	21.386	g
Dry Weight (Total)	25.208	g
Solids, Percent	58.5	%

Sample: MC33244-5 **Analyzed:** 02-SEP-14 by HS **Method:** SM21 2540 B MOD.
ClientID: MH-A4

Wet Weight (Total)	31.822	g
Tare Weight	21.133	g
Dry Weight (Total)	26.167	g
Solids, Percent	47.1	%

Sample: MC33244-6 **Analyzed:** 02-SEP-14 by HS **Method:** SM21 2540 B MOD.
ClientID: MH-A3

Wet Weight (Total)	31.503	g
Tare Weight	20.848	g
Dry Weight (Total)	26.908	g
Solids, Percent	56.9	%

Percent Solids Raw Data Summary

Job Number: MC33244
Account: WSPVAR WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

Sample: MC33244-7 **Analyzed:** 02-SEP-14 by HS **Method:** SM21 2540 B MOD.
ClientID: MH-C4

Wet Weight (Total)	26.897	g
Tare Weight	18.9	g
Dry Weight (Total)	23.353	g
Solids, Percent	55.7	%

Sample: MC33244-8 **Analyzed:** 02-SEP-14 by HS **Method:** SM21 2540 B MOD.
ClientID: MH-B2

Wet Weight (Total)	29.494	g
Tare Weight	21.727	g
Dry Weight (Total)	27.059	g
Solids, Percent	68.6	%

Sample: MC33244-9 **Analyzed:** 02-SEP-14 by HS **Method:** SM21 2540 B MOD.
ClientID: MH-D1

Wet Weight (Total)	30.753	g
Tare Weight	23.192	g
Dry Weight (Total)	27.827	g
Solids, Percent	61.3	%

Sample: MC33244-10 **Analyzed:** 02-SEP-14 by HS **Method:** SM21 2540 B MOD.
ClientID: MH-D2

Wet Weight (Total)	34.842	g
Tare Weight	26.584	g
Dry Weight (Total)	31.615	g
Solids, Percent	60.9	%

Sample: MC33244-11 **Analyzed:** 02-SEP-14 by HS **Method:** SM21 2540 B MOD.
ClientID: MH-B3

Wet Weight (Total)	34.973	g
Tare Weight	26.95	g
Dry Weight (Total)	31.598	g
Solids, Percent	57.9	%

New England ACCUTEST LABORATORIES

General Chemistry

Raw Data

Accutest Laboratories of New England, Inc.

FLASHPOINT/IGNITIBILITY

Method: SW 846 1020A

Corrected FP= F + 0.42 (101.3- Kpa)

GN 48058

Instrument: Setaflash 1

MATRIX: Soil

Sample Desc.	Bot #	Pre Test	Rep 1	Rep 2	Rep 3	Kpa	Results	Comments	Init./Date	QCRev./Date
MC32226-1R D1	2	>230°F	>230°F			101.4	>230°F		BS/8-21-14	8/21/14
MC32226-1R	2	>230°F	>230°F			↓	>230°F		↓	↓
MC33041-1	1	>230°F	>230°F			101.3	>230°F		BS/8-27-14	8/28/14
MC33087-3	1	>230°F	>230°F				>230°F			
MC33084-1	4	>230°F	>230°F				>230°F			
MC33084-2	4	>230°F	>230°F				>230°F			
MC33084-3	4	>230°F	>230°F				>230°F			
MC33084-4	4	>230°F	>230°F				>230°F			
MC32946-1BR	1	>230°F	>230°F				>230°F			
MC32946-1AR	1	>230°F	>230°F				>230°F			
MC33191-1	1	>230°F	>230°F			101.3	>230°F		BS/8-28-14	8/29/14
MC33244-1	1	>230°F	>230°F			101.3	>230°F		BS/9-3-14	9/4/14
MC33244-2	1	>230°F	>230°F				>230°F			
MC33244-3	1	>230°F	>230°F				>230°F			
MC33244-4	1	>230°F	>230°F				>230°F			
MC33244-5	1	>230°F	>230°F				>230°F			
MC33244-6	1	>230°F	>230°F				>230°F			
MC33244-7	1	>230°F	>230°F				>230°F			
MC33244-8	1	>230°F	>230°F				>230°F			
MC33244-9	1	>230°F	>230°F				>230°F			
MC33244-10	1	>230°F	>230°F			↓	>230°F			
INIT. CHK1 p-xylene	-	80°F	80°F	80°F		101.4	80°F	LOT# vendor-13083	BS/8-21-14	8/21/14
END CHK1 n-nonane	-	98°F	98°F	98°F		↓	98°F	LOT# vendor-13309	↓	↓
INIT. CHK2 p-xylene	-	80°F	80°F	80°F		101.3	80°F	LOT# vendor-13083	BS/8-27-14	8/28/14
END CHK2 n-nonane	-	98°F	98°F	98°F		↓	98°F	LOT# vendor-13309	↓	↓
INIT. CHK3 p-xylene	-	80°F	80°F	80°F		101.3	80°F	LOT# vendor-13083	BS/8-28-14	8/29/14
END CHK3 n-nonane	-	98°F	98°F	98°F		↓	98°F	LOT# vendor-13309	↓	↓
INIT. CHK4 p-xylene	-	80°F	80°F	80°F		101.3	80°F	LOT# vendor-13083	BS/9-3-14	9/4/14
END CHK4 n-nonane	-	98°F	98°F	98°F		↓	98°F	LOT# vendor-13309	↓	↓

GN030-04 (9/22/06)

ACCUTEST

Protected Worksheet MGN 103-C
(Format edits must be done by Dept Manager)

Test: Cn Reactivity
Product: CREAC
Method: SW846 CHAPT 7
SW846 CHAPT 7 ◉ Units: mg/kg ○ mg/l

Analyst: BIJANF
GN Batch ID: GN48138
GP Batch ID: GP18082
Date: 9/2/2014
Instrument ID: spectronic 578nm

Original Calibration Information — Calibration Date: 9/2/2014

	Blank	Std 1	Std 2	Std 3	Std 4	Std 5	Std 6	Std 7	Std 8	Std 9	Std 10
Known:	0.00	0.02	0.05	0.10	0.20	0.30	0.40				
Absorbance:	0.000	0.064	0.152	0.288	0.584	0.910	1.256				
Actual Value:	0.003	0.024	0.052	0.096	0.191	0.296	0.407				

Reagents & Standards Log

Calib STD	GNSTD-34936-CREAC	Reagent	RGT-42196-CREAC
CCV	GNSTD-34936-CREAC-5	Reagent	
ICV		Reagent	
Reagent	RGT-52127-CREAC	Reagent	
Reagent	RGT-42135-CREAC	Reagent	

Correlation Coeff. = 0.99930
Slope = 0.32174
Intercept = 0.00329

Dup Sample ID:	MC33244-1	Orig:	<1.7		Dup:	<1.7		RPD:	0%	
MS Sample ID:	MC33244-1	Orig:	<1.7		Spike Amt:	279	MS Res:	28.3	% Rec:	10%
MB Prep Date:	09/02/14	Res:	<1.5	RL:	1.5	<RL ?:	Y			
SB Prep Date:	09/02/14	Res:	27.7	Spike Amt:	250	% Rec:	11%			
SB Prep Date:		Res:		Spike Amt:		% Rec:				
CCV (1) Res:	0.193	Known:	0.20	% Rec:	97%	CCV (2) Res:	0.200	Known:	0.20	% Rec:	100%
CCV (3) Res:	0.201	Known:	0.20	% Rec:	101%	CCV (4) Res:		Known:	0.20	% Rec:	

CYANIDE STOCK STANDARDIZATION — If within a week , enter the GN# , and Date. → GN: GN48098 — Date: 8/27/2014

ML of BLK	ML AgNO3 for BLK	ML of 10 ppm CN STD	ML AgNO3 for 10 ppm CN Std	Calculated Conc. Of 10 ppm STD	Calculated Conc. Of CN Stock
250		250			

Time Analyzed	Sample ID	Bottle #	Initial Wt (g) or Vol (ml)	Final Vol (ml)	Dilution	Sample Abs	Background Abs.	Result From Curve (mg/L)	Final Result	DL	Units
13:20	CCV		50	50	1	0.590	0.000	0.193	0.193	0.040	mg/L
13:20	CCB		50	50	1	0.000	0.000	0.003	0.003	0.040	mg/L
13:20	GP18082-MB1		10	250	1	0.000	0.000	0.003	0.082	1.500	mg/kg
13:20	GP18082-B1		10	250	5	0.678	0.000	0.221	27.679	7.500	mg/kg
13:20	GP18082-S1		10	250	5	0.620	0.000	0.203	25.347	7.500	mg/kg
13:20	GP18082-D1		10	250	1	0.004	0.000	0.005	0.114	1.500	mg/kg
13:20	MC33244-1		10	250	1	0.004	0.000	0.005	0.114	1.500	mg/kg
13:20	MC33244-2		10.1	250	1	0.006	0.000	0.005	0.129	1.500	mg/kg
13:20	MC33244-3		10.1	250	1	0.008	0.000	0.006	0.145	1.500	mg/kg
13:20	MC33244-4		10	250	1	0.005	0.000	0.005	0.123	1.500	mg/kg
13:20	MC33244-5		10	250	1	0.006	0.000	0.005	0.131	1.500	mg/kg
13:20	MC33244-6		10.3	250	1	0.007	0.000	0.006	0.135	1.500	mg/kg
13:20	CCV		50	50	1	0.610	0.000	0.200	0.200	1.500	mg/kg
13:30	CCB		50	50	1	0.000	0.000	0.003	0.003	1.500	mg/kg
13:30	MC33244-7		10	250	1	0.008	0.000	0.006	0.147	1.500	mg/kg
13:30	MC33244-8		10.3	250	1	0.006	0.000	0.005	0.127	1.500	mg/kg
13:30	MC33244-9		10	250	1	0.004	0.000	0.005	0.114	1.500	mg/kg
13:30	MC33244-10		10	250	1	0.006	0.000	0.005	0.131	1.500	mg/kg
13:30	MC33244-11		10.1	250	1	0.005	0.000	0.005	0.121	1.500	mg/kg
13:30	MC33191-1		10.2	250	1	0.003	0.000	0.004	0.104	1.500	mg/kg
13:30	CCV		50	50	1	0.615	0.000	0.201	0.201	1.500	mg/kg
	CCB		50	50	1	0.000	0.000	0.003	0.003	1.500	mg/kg

9-2-14 BIJ

Comment:

Analyst: BIJ Date: 9-2-14 QC Reviewer: Date: 9/3/14

ACCUTEST

Distillation

Protected Worksheet MGN127-01
(Format edits must be done by Dept. manager)

Analyst:	BIJANF	Date	9/2/14	Batch ID	GP18082	Matrix	Solids
QC Sample	MC33244-1	Balance ID	ACC-5	pH Meter ID	N/A	Block ID	N/A

Analysis Type

CN EPA 335.4 ○	CN SW846 9010B ○	CN-A SM21 4500CN-G/335.4 ○	CN-A SW846 9010 ○
PAC MADEP ○	CREAC Chap 7 ◉	SREAC Chap7 ○	CNWAD SM20 4500CN-I ○

Sample ID	Bot #	ID	Interfere Chk CL	Interfere Chk S	Init. pH	SMPL Amt G	DIST Vol ML	Start Time	End Time	Comments/Spike
GP18082-MB1		N/A	N/A	N/A	N/A	10	250	8:55	9:25	
GP18082-B1		N/A	N/A	N/A	N/A	10	250	8:55	9:25	2.5 ML OF SPIKE
GP18082-S1	1	N/A	N/A	N/A	N/A	10	250	8:55	9:25	2.5 ML OF SPIKE
GP18082-D1	1	N/A	N/A	N/A	N/A	10	250	8:55	9:25	
MC33244-1	1	N/A	N/A	N/A	N/A	10	250	8:55	9:25	
MC33244-2	1	N/A	N/A	N/A	N/A	10.1	250	8:55	9:25	
MC33244-3	1	N/A	N/A	N/A	N/A	10.1	250	10:30	11:00	
MC33244-4	1	N/A	N/A	N/A	N/A	10	250	10:30	11:00	
MC33244-5	1	N/A	N/A	N/A	N/A	10	250	10:30	11:00	
MC33244-6	1	N/A	N/A	N/A	N/A	10.3	250	10:30	11:00	
MC33244-7	1	N/A	N/A	N/A	N/A	10	250	10:30	11:00	
MC33244-8	1	N/A	N/A	N/A	N/A	10.3	250	10:30	11:00	
MC33244-9	1	N/A	N/A	N/A	N/A	10	250	11:45	12:15	
MC33244-10	1	N/A	N/A	N/A	N/A	10	250	11:45	12:15	
MC33244-11	1	N/A	N/A	N/A	N/A	10.1	250	11:45	12:15	
MC33191-1	1	N/A	N/A	N/A	N/A	10.2	250	11:45	12:15	

9-2-14 BIJ

Reagent Lot # (Refer to Indivdual SOP for amounts added)

0.01N H2SO4	RGT-42195-SREAC	N/A	
0.25N NaOH	RGT-42132-CREAC	N/A	
CREAC Spike	GNSTD-33221-CN-1	N/A	
N/A		N/A	
N/A		N/A	

Comment:

QC Review _____ Date 9/3/14

9.2.9

ACCUTEST LABORATORIES

ACCUTEST

Protected Worksheet MGN 113-01
(Format edits must be done by Dept. Manager)

Method: SW846 Chapter 7/9034 (Aq) ○
SW846 Chapter 7/9034 (Solid) ◉

GN Batch: GN48140
Date: 09/02/14

Analyst: BIJANF

Test: SREAC

		Reagent LOT#
Sod. Thiosulfate Normality:	0.025	VENDOR-14906
Iodine Normality:	0.025	RGT-42059-SREAC
Normality of HCl:	6N	RGT-42134-S
Sulfide Check Standard		GNSTD-34935-SREAC-1
Starch		

Iodine Standardization

	ML Iodine	Start Titrant	End Titrant	Total ML	Ave. Ml of Titrant
STD#1	20	0	20	20	20
STD#2	20	20	40	20	

MS Sample ID: MC33244-1 Original: <56 MS: 390 Spk Amt 502 %REC 78%
Dup Sample ID: MC33244-1 Original: <56 Duplicate: <56 RPD: 0.0%
Method Blank Date: 9/2/2014 Result: <50 RL: 50 <MDL? y
Spk Blk (1): 400 Spk Blk(2) Spike AMT 450 %REC (1) 89% %REC (2) %RPD
Sulfide Check Standard: GNSTD-34935-SREAC-1 Known 537.00 Res 450 %REC 84%

Bottle #	Sample ID	Iodine (ML)	6N HCl (50 ML)	6N HCL (100ML)	Initial Reading for titrant (ML)	Final Reading for titrant (ML)	Titrant Total (ML)	Sample (G)	Final Volume of Distillate	Result (mg/l)	Final Result (mg/kg)	RL
	GP18083-MB1	5	0.5	1.00	0	5	5.00	10.00	250	0.0	0.0	50
	GP18083-B1	20	0.8	1.60	5	21	16.00	10.00	250	16.0	400.0	50
	GP18083-S1	20	0.8	1.60	21	37.5	16.50	10.00	250	14.0	350.0	50
	GP18083-D1	5	0.5	1.00	37.5	42.5	5.00	10.00	250	0.0	0.0	50
	MC33244-1	5	0.5	1.00	42.5	47.5	5.00	10.00	250	0.0	0.0	50
	MC33244-2	5	0.5	1.00	0	5	5.00	10.10	250	0.0	0.0	50
	MC33244-3	5	0.5	1.00	5	10	5.00	10.10	250	0.0	0.0	50
	MC33244-4	5	0.5	1.00	10	15	5.00	10.00	250	0.0	0.0	50
	MC33244-5	5	0.5	1.00	15	20	5.00	10.00	250	0.0	0.0	50
	MC33244-6	5	0.5	1.00	20	25	5.00	10.30	250	0.0	0.0	50
	MC33244-7	5	0.5	1.00	25	30	5.00	10.00	250	0.0	0.0	50
	MC33244-8	5	0.5	1.00	30	35	5.00	10.30	250	0.0	0.0	50
	MC33244-9	5	0.5	1.00	35	40	5.00	10.00	250	0.0	0.0	50
	MC33244-10	5	0.5	1.00	40	45	5.00	10.00	250	0.0	0.0	50
	MC33244-11	5	0.5	1.00	45	50	5.00	10.10	250	0.0	0.0	50
	MC33191-1	5	0.5	1.00	0	5	5.00	10.20	250	0.0	0.0	50
	SCSCONF	20	1.2	2.40	0	15.5	15.50	10.00	250	18.0	450.0	50

9-2-14 BIJF

Comments:

Analyst: Date: 9-2-14 QC Reviewer: Date: 9/3/14

GN48140

QC Reports:

Raw Data GN48140: Sulfide Reactivity page 1 of 2

ACCUTEST

Distillation

Protected Worksheet MGN127-01

(Format edits must be done by Dept. manager)

Analyst:	BIJANF	Date	9/2/14	Batch ID	GP18083	Matrix	Solids
QC Sample	MC33244-1	Balance ID	ACC-5	pH Meter ID	N/A	Block ID	N/A

Analysis Type

CN EPA 335.4 ○	CN SW846 9010B ○	CN-A SM21 4500CN-G/335.4 ○	CN-A SW846 9010 ○
PAC MADEP ○	CREAC Chap 7 ○	SREAC Chap7 ◉	CNWAD SM20 4500CN-I ○

Sample ID	Bot #	ID	Interfere Chk CL	Interfere Chk S	Init. pH	SMPL Amt G	DIST Vol ML	Start Time	End Time	Comments/Spike
GP18083-MB1		N/A	N/A	N/A	N/A	10	250	8:55	9:25	
GP18083-B1		N/A	N/A	N/A	N/A	10	250	8:55	9:25	10.0 ML OF SPIKE
GP18083-S1	1	N/A	N/A	N/A	N/A	10	250	8:55	9:25	10.0 ML OF SPIKE
GP18083-D1	1	N/A	N/A	N/A	N/A	10	250	8:55	9:25	
MC33244-1	1	N/A	N/A	N/A	N/A	10	250	8:55	9:25	
MC33244-2	1	N/A	N/A	N/A	N/A	10.1	250	8:55	9:25	
MC33244-3	1	N/A	N/A	N/A	N/A	10.1	250	10:30	11:00	
MC33244-4	1	N/A	N/A	N/A	N/A	10	250	10:30	11:00	
MC33244-5	1	N/A	N/A	N/A	N/A	10	250	10:30	11:00	
MC33244-6	1	N/A	N/A	N/A	N/A	10.3	250	10:30	11:00	
MC33244-7	1	N/A	N/A	N/A	N/A	10	250	10:30	11:00	
MC33244-8	1	N/A	N/A	N/A	N/A	10.3	250	10:30	11:00	
MC33244-9	1	N/A	N/A	N/A	N/A	10	250	11:45	12:15	
MC33244-10	1	N/A	N/A	N/A	N/A	10	250	11:45	12:15	
MC33244-11	1	N/A	N/A	N/A	N/A	10.1	250	11:45	12:15	
MC33191-1	1	N/A	N/A	N/A	N/A	10.2	250	11:45	12:15	

9-2-14 BJ

Reagent Lot # (Refer to Indivdual SOP for amounts added)

0.01N H2SO4	RGT-42195-SREAC	N/A	
0.25N NaOH	RGT-42132-CREAC	N/A	
Sulfide Spike	GNSTD-34934-S-1	N/A	
Spike Check Solution	GNSTD-34835-SREAC-1	N/A	
N/A		N/A	

Comment:

QC Review _____ Date 9/3/14

TEST: CORROSIVITY SW846 CHAP7 Matrix: Soil/ SW846 9045D ☑

INSTRUMENT/ID 520 Aorion Liquid/ SW846 9040C ☐

Date of calibration: 9-2-14 Temperature of Calibration Buffers: 20.0°C GN# 48144

Dup Sample ID: MC33244-1 ORIG: 7.6 DUP 7.6 RPD: 0.0 %

BOT#	Sample ID	GL ML	Vol DI mL	PH	PH	PH	Temp C	Temp. Corrected PH	Analyst Date	QC Review
	Buffer 4.0	60		4.03			20.0	4.0	9-2-14 MA	9/3/14
1	DUP MC33244-1	20.0	20.0	7.57	7.60		20.0	7.6		
1	-1			7.59	7.62		20.0	7.6		
1	-2			6.90	6.91		20.0	6.9		
1	-3			7.60	7.63		20.0	7.6		
1	-4			8.26	8.30		20.0	8.3		
1	-5			7.78	7.80		20.0	7.8		
1	-6			7.81	7.83		20.0	7.8		
1	-7			7.99	8.02		20.0	8.0		
1	-8			7.53	7.54		20.0	7.5		
1	-9			7.76	7.80		20.0	7.8		
	Buffer 7.0	60		7.01			20.0	7.0		
1	MC33244-10	20.0	20.0	7.88	7.93		20.0	7.9		
1	-11			7.52	7.54		20.0	7.5		
	9-2-14 MA									
	Buffer 10.0	60		9.99			20.0	10.0		

Comment: _____

GN005-02 (9/10/04)

Accutest Laboratories of New England, Inc.

FLASHPOINT/IGNITIBILITY

Method: SW 846 1020A

Corrected FP= F + 0.42 (101.3- Kpa)

GN 48156

Instrument: Setaflash 1

MATRIX: Soil

Sample Desc.	Bot #	Pre Test	Rep 1	Rep 2	Rep 3	Kpa	Results	Comments	Init./Date	QCRev./Date
MC33244-11 D1	1	>230°F	>230°F			101.3	>230°F		BS 9-3-14	9/14/14
MC33244-11	1	>230°F	>230°F			↓	>230°F		↓	↓
INIT. CHK1 p-xylene	–	80°F	80°F	80°F		101.3	80°F	LOT# Vendor-13083	BS 9-3-14	9/14/14
END CHK1 n-butanol	–	98°F	98°F	98°F		↓	98°F	LOT# Vendor-13309	↓	↓
INIT. CHK2								LOT#		
END CHK2								LOT#		
INIT. CHK3								LOT#		
END CHK3								LOT#		
INIT. CHK4								LOT#		
END CHK4								LOT#		

GN030-04 (9/22/06)

New England ACCUTEST LABORATORIES

Misc. Raw Data

Raw Data

Toxic Characteristic Leaching Procedure - Organic / Inorganic

Method: SW846 1311 **Product: TCLPE**

Batch ID: TCLPE_090214-1 **Start Date:** 9/2/2014 **Rotator ID:** 1 **(Rev/Min 30 +/- 2)** 30

Analyst: HAMIDS **End Date:** 9/3/2014 **Rotator ID:** 2 **(Rev/Min 30 +/- 2)** 30

		Analysis Type			Rotation Period		Prelim Evaluation			Extraction Wts		Extraction Fluid				Extraction Vessel		Rm Temp					
Sample #	Bot #	Anal Type	Inorg LS	Org LS	Start Time	End Time	% Sol	Step1 pH	Step2 pH	Gram Total	Gram Solid	Fluid #	pH	Vol mls	Final pH	Ves #	Rotator id	Start Temp	Start Temp CF	Corr Start Temp	End Temp	End Temp CF	Corr End Temp
Buffer 4.0															4.01								
MB		M		N/A	15:00	8:00	100	4.91	N/A	100	100.0	1	4.93	2000	4.94	10	1	22	0.5	22.5	22	0.5	22.5
JB75106-1A	1	M	JB51106-1A	N/A	15:00	8:00	100	7.29	1.72	100	100.0	1	4.93	2000	4.99	51	1	22	0.5	22.5	22	0.5	22.5
MC32861-4R	2	M	JB51106-1A	N/A	15:00	8:00	100	7.43	1.85	100	100.0	1	4.93	2000	5.58	77	1	22	0.5	22.5	22	0.5	22.5
MC33244-1	1	M	JB51106-1A	N/A	15:00	8:00	100	9.71	1.66	100	100.0	1	4.93	2000	5.46	18	1	22	0.5	22.5	22	0.5	22.5
MC33244-2	1	M	JB51106-1A	N/A	15:00	8:00	100	9.67	1.64	100	100.0	1	4.93	2000	5.21	34	1	22	0.5	22.5	22	0.5	22.5
MC33244-3	1	M	JB51106-1A	N/A	15:00	8:00	100	9.31	1.69	100	100.0	1	4.93	2000	6.21	17	1	22	0.5	22.5	22	0.5	22.5
MC33244-4	1	M	JB51106-1A	N/A	15:00	8:00	100	8.79	1.67	100	100.0	1	4.93	2000	6.67	11	1	22	0.5	22.5	22	0.5	22.5
MC33244-5	1	M	JB51106-1A	N/A	15:00	8:00	100	8.92	1.62	100	100.0	1	4.93	2000	5.42	28	1	22	0.5	22.5	22	0.5	22.5
MC33244-6	1	M	JB51106-1A	N/A	15:00	8:00	100	8.79	1.68	100	100.0	1	4.93	2000	6.20	48	1	22	0.5	22.5	22	0.5	22.5
MC33244-7	1	M	JB51106-1A	N/A	15:00	8:00	100	8.57	1.62	100	100.0	1	4.93	2000	6.37	27	1	22	0.5	22.5	22	0.5	22.5
MC33244-8	1	M	JB51106-1A	N/A	15:00	8:00	100	8.91	1.63	100	100.0	1	4.93	2000	5.73	37	1	22	0.5	22.5	22	0.5	22.5
Buffer 7.0															7.00								
MC33244-9	1	M	JB51106-1A	N/A	15:00	8:00	100	8.95	1.60	25	25.0	1	4.93	500	5.98	H45	1	22	0.5	22.5	22	0.5	22.5
MC33244-10	1	M	JB51106-1A	N/A	15:00	8:00	100	9.07	1.62	100	100.0	1	4.93	2000	6.52	58	1	22	0.5	22.5	22	0.5	22.5
MC33244-11	1	M	JB51106-1A	N/A	15:00	8:00	100	9.01	1.62	100	100.0	1	4.93	2000	5.62	30	2	22	0.5	22.5	22	0.5	22.5
MC33121-5R	1	M	JB51106-1A	N/A	15:00	8:00	100	7.78	1.65	100	100.0	1	4.93	2000	6.08	35	2	22	0.5	22.5	22	0.5	22.5
MC33246-1	2	M	JB51106-1A	N/A	15:00	8:00	100	8.93	1.59	100	100.0	1	4.93	2000	5.05	49	2	22	0.5	22.5	22	0.5	22.5
MC33270-1A	1	M	MC33270-1A	N/A	15:00	8:00	19.435	6.48	1.69	514.54	100.0	1	4.93	2000	5.60	71	2	22	0.5	22.5	22	0.5	22.5
MC33270-2A	1	M	MC33270-1A	N/A	15:00	8:00	15.746	6.45	1.75	317.54	50.0	1	4.93	1000	5.17	65	2	22	0.5	22.5	22	0.5	22.5
Buffer 7.0															7.01								

Toxic Characteristic Leaching Procedure - Organic / Inorganic

Method: SW846 1311 **Product: TCLPE** TCLPE_090214-1

Comments and Additional Information:

(a) Acceptance criteria for room temperature is 23 -/+ Deg. C

(b)% Solids in preliminary solid determination if not 100%, then TCLP % solids determination must be performed.

(C) Record all pH values to 2 places past the decimal point and all weight to 1 place past the decimal point.

Thermometer ID	OP 010	**Extraction Fluid #1**	RGT-42199-TCLP
pH Meter ID	520A-ORION	**Extraction Fluid #2**	
Balance ID	ACC-5	**TCLP filter paper**	400081-4147

Rev Date 4/2/09

HNO3 (preserve)	VENDOR-14860	**pH Buffer**	4.00	VENDOR-14745
Filter acid rinse sln		**pH Buffer**	7.00	VENDOR-14589
1 N HCL	RGT-41477-TCLP	**pH Buffer**		

Comments: Note 1: Thermometer OP 010 (Min / Max) was within acceptable range with correction factor of 0.5 DEG. C. Note 2: MC33244-9 and MC33270-2A limited volume. Note 3: MC33270-1A weigh in 4 cups: 134.4, 141.58, 140.05 and 88.52 grams. MC33270-2A weigh in 3 cups: 130.42, 122.11 and 65.0 grams. Note 4: ICP Metal Spike Lot # : METSTK-1158-METALS. Note 5 : Hg Metal Spike Lot # : MESTD-34945-HG-1.

Approved By: mehdia **Date:** 9/4/2014 10:22:33 AM

Form: GN-050 Rev Date 4/2/09

Data Validation Report

WSP Environmental & Energy
EPT
Ithaca, NY

SDG# MC33244

ECT.CON INC.

Environmental and Computer
Technology Consultants

115 Riverview Bend South Unit 2144
Palm Coast, Fl 32137
Office (386) 283-9360
Cell (724) 288-1971
e-mail: ectconinc@mac.com

DATA VALIDATION REPORT

Project Name: EPT Ithaca
SDG # MC33244

Performed for: WSP Environmental & Energy

Laboratory: Accutest

Validation Performed by: ECT.CON INC
Validation Guidance: USEPA CLP National Functional Guidelines for Organic Data Review (NFG)

Validation Report Date: 10/3/14

Samples/Matrix:

	Sample Date	Sample ID	Laboratory ID	Matrix
1	08/28/14	MH-C3	MC33244-1	Solid
2	08/28/14	MH-A1	MC33244-2	Solid
3	08/28/14	MH-A2	MC33244-3	Solid
4	08/28/14	MH-A20	MC33244-4	Solid
5	08/28/14	MH-A4	MC33244-5	Solid
6	08/28/14	MH-A3	MC33244-6	Solid
7	08/28/14	MH-C4	MC33244-7	Solid
8	08/28/14	MH-B2	MC33244-8	Solid
9	08/28/14	MH-D1	MC33244-9	Solid
10	08/28/14	MH-D2	MC33244-10	Solid
11	08/28/14	MH-B3	MC33244-11	Solid

This sample set consists of the following:

Field Samples :	11
Trip Blanks :	0
Equipment Blanks :	0
Field Blanks :	0
Field Duplicates:	0

Analytical data in this report were reviewed to determine analytical limitations of the data based on specific quality control criteria. This review is performed on a laboratory signed data data package. The laboratory signature indicates that the laboratory has reviewed and has certified that the information provided in the data package are correct and complete.
The results of the review are an interpretation of the reported quality control information provided by the laboratory in comparison to the specified validation criteria for the project. Laboratory calculations have been verified as part of the validation. Form 1's and/or analytical results sheets are annotated with the results of the validation.

This evaluation was conducted in accordance with the requested validation guidelines, project requirement and the analytical method. Findings from this validation should be considered when using the analytical data.

The inorganic findings are based on the validation of the following:

Sample Preservation
Holding Times
Initial Calibration
Continuing Calibration
Blanks (lab and field)
Matrix Spike/Matrix Spike Duplicate (MS/MSD)
Laboratory Control Sample (LCS)
Internal Standards
ICP Serial Dilution
Duplicates
Compound Quantification and Quantiation Limits
System Performance

This report consists of the validation findings. This is followed by annotated Form 1's. The final section of the report is supporting documentation. This consists of the Chain of Custody, laboratory case narrative and the validation worksheets.

Project Number: **MC33244**

TCLP - Toxicity Characteristics Leaching Procedure

Method Number	**Description**
SW-846 6010C	TCLP Metals
SW-846 7470A	TCLP Mercury (Hg)
SW-846 Chap 7	Cyanide (CN) Reactivity
SW-846 Chap 7	Sulfide Reactivity
SW-846 Chap 7	Corrosivity as pH
SW-846 1020	Ignitability (Flashpoint)

					TCLP Metals	TCLP Hg	Cyanide	Sulfide	Corrosivity	Ignitability
	Sample Date	**Sample ID**	**Laboratory ID**	**Matrix**	**6010B**	**7470A**	**Chap 7**	**Chap 7**	**Chap 7**	**1020**
1	08/28/14	MH-C3	MC33244-1	Solid	X	X	X	X	X	X
2	08/28/14	MH-A1	MC33244-2	Solid	X	X	X	X	X	X
3	08/28/14	MH-A2	MC33244-3	Solid	X	X	X	X	X	X
4	08/28/14	MH-A20	MC33244-4	Solid	X	X	X	X	X	X
5	08/28/14	MH-A4	MC33244-5	Solid	X	X	X	X	X	X
6	08/28/14	MH-A3	MC33244-6	Solid	X	X	X	X	X	X
7	08/28/14	MH-C4	MC33244-7	Solid	X	X	X	X	X	X
8	08/28/14	MH-B2	MC33244-8	Solid	X	X	X	X	X	X
9	08/28/14	MH-D1	MC33244-9	Solid	X	X	X	X	X	X
10	08/28/14	MH-D2	MC33244-10	Solid	X	X	X	X	X	X
11	08/28/14	MH-B3	MC33244-11	Solid	X	X	X	X	X	X
			Number samples each parameter:		11	11	11	11	11	11

FINDINGS

SULFIDE REACTIVITY

1. The methodology for reactive sulfide was withdrawn as a requirement for wastes in 1998 due to inherent problems with the methodology. Even though the method is no longer recognized by the USEPA, the method was used to analyze for reactive sulfide on this project. The laboratory's SOP calls for the use of an LCS and MS in the method. The blank spike (84%) and matrix spike (78%) recoveries were inside laboratory specific limits. Because the methodology is flawed, the data user is strongly cautioned against using the data especially in a quantitative manner. Results may biased low.

MH-C3	MH-A1	MH-A2	MH-A20
MH-A4	MH-A3	MH-C4	MH-B2
MH-D1	MH-D2	MH-B3	

CYANIDE REACTIVITY

2. The methodology for reactive cyanide was withdrawn as a requirement for wastes in 1998 due to inherent problems with the methodology. Even though the method is no longer recognized by the USEPA, the method was used to analyze for reactive cyanide on this project. The laboratory's SOP calls for the use of an LCS and MS in the method. The blank spike (11%) and matrix spike (10.2%) recoveries were outside the Inorganic National Guidelines default acceptance limits. The laobratory did not provide laboratory specific limits. Because the methodology is flawed and the recoveries were exceptionally low, the data user is strongly cautioned against using the data especially in a quantitative manner. Results are biased extremely low.

MH-C3	MH-A1	MH-A2	MH-A20
MH-A4	MH-A3	MH-C4	MH-B2
MH-D1	MH-D2	MH-B3	

TCLP MERCURY

3. Recovery of mercury (83.3%) fell below the 85% quality control limit for the continuing calibration verification standard (CCV) analyzed on 9/3/14 at 1655. In the following samples, nondetected results for mercury were qualified as estimated, "UJ."

MH-C3	MH-A1	MH-A2	MH-A20
MH-A4	MH-A3	MH-D2	MH-B3

TCLP METALS

4. Positive results less than the reporting limits were qualified as estimated, "J", due to uncertainty near the detection limit.

IGNITABILITY (FLASHPOINT)

All technical parameters were met. Data were not qualified.

CORROSIVITY AS pH

All technical parameters were met. Data were not qualified.

NOTES

SULFIDE REACTIVITY

A. The methodology for reactive sulfide was withdrawn in 1998 due to inherent problems in the methodology. Therefore, the data user is strongly cautioned that the results should not be used quantitatively.

B. Quality control limits were not specified for MS/MSD and LCS recoveries for sulfide reactivity. A range of 75-125% was used for data validation. Data were not qualified on this basis.

CYANIDE REACTIVITY

C. The methodology for reactive cyanide was withdrawn in 1998 due to inherent problems in the methodology. The method has the potential for the release of harmful cyanide gas. Accutest indicated that they chose to not re-analyze the samples with an increased acid concentration due to the potential release of CN gas. Therefore, the data user is strongly cautioned that the results may be biased low and should not be used quantitatively.

TCLP MERCURY

D. A non-client MS/MSD was analyzed with this SDG. The sample was not used as a basis for validation. A laboratory control sample was analyzed and was compliant. Data were not qualified on this basis.

TCLP METALS

E. The following sample(s) were anlayzed and reported at the listed dilution factors due to the presence of target compounds and/or matrix interferences. Data were not qualified on this basis.

Sample	Lab ID	Dilution	Parameters
MH-A2	MC33244-3	10X	Ba
MH-A20	MC33244-4	20X	Ba
MH-A4	MC33244-5	10X	Ba
MH-A3	MC33244-6	10X	Ba
MH-D1	MC33244-9	2X	Pb

F. A non-client MS/MSD was analyzed with this SDG. The sample was not used as a basis for validation. A laboratory control sample was analyzed and was compliant. Data were not qualified on this basis.

G. An internal standard fell below the 70% qulaity control limit for MH-D1. The laboratory noted that no target compounds were associated with the standard. Data were not qualified on this basis.

IGNITABILITY (FLASHPOINT)

No further technical issues were noted.

CORROSIVITY AS pH

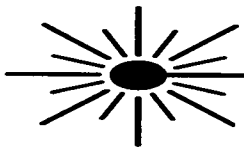
No further technical issues were noted.

Data Reviewer

10/15/14
Date

Glossary of Data Qualifiers

U	Not Detected.	The associated number indicates approximate sample concentration necessary to be detected.
UJ	Not Detected.	Quantitation limit may be inaccurate or imprecise.
J	Analyte Present.	Reported value may not be accurate or precise.
N	Consider Present.	Tentative identification. Special methods may be needed to confirm its presence or absence in future sampling efforts.
R	Unusable Result.	Analyte may or may not be present in the sample.
UR	Unusable Result.	Analyte may or may not be present in the sample.
NJ	Consider Present.	Tentative identification. Special methods may be needed to confirm its presence or absence in future sampling efforts. Reported value may not be accurate or precise.



ECT.CON INC.

Environmental and Computer
Technology Consultants

Annotated Form 1's
(Spreadsheet)

Accutest Laboratories

Report of Analysis

Client Sample ID:	MH-C3		
Lab Sample ID:	MC33244-1	**Date Sampled:**	08/28/14
Matrix:	SO - Soil	**Date Received:**	08/29/14
		Percent Solids:	89.7
Project:	Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Corrosivity as pH	7.6			1	09/02/14	MA	SW846 CHAP7
Cyanide Reactivity	<1.7	1.7	mg/kg	1	09/02/14 13:20	BF	SW846 CHAP7
Ignitability (Flashpoint)	>230		Deg. F	1	09/03/14	BF	SW846 1020
Solids, Percent	89.7		%	1	09/02/14	HS	SM21 2540 B MOD.
Sulfide Reactivity	<56	56	mg/kg	1	09/02/14	BF	SW846 CHAP7

10/15/14

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MH-A1		
Lab Sample ID:	MC33244-2	**Date Sampled:**	08/28/14
Matrix:	SO - Soil	**Date Received:**	08/29/14
		Percent Solids:	80.2
Project:	Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Corrosivity as pH	6.9			1	09/02/14	MA	SW846 CHAP7
Cyanide Reactivity	<1.9	1.9	mg/kg	1	09/02/14 13:20	BF	SW846 CHAP7
Ignitability (Flashpoint)	>230		Deg. F	1	09/03/14	BF	SW846 1020
Solids, Percent	80.2		%	1	09/02/14	HS	SM21 2540 B MOD.
Sulfide Reactivity	<62	62	mg/kg	1	09/02/14	BF	SW846 CHAP7

9/5/14

RL = Reporting Limit

Accutest Laboratories

Report of Analysis

Client Sample ID:	MH-A2		
Lab Sample ID:	MC33244-3	**Date Sampled:**	08/28/14
Matrix:	SO - Soil	**Date Received:**	08/29/14
		Percent Solids:	52.9
Project:	Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Corrosivity as pH	7.6			1	09/02/14	MA	SW846 CHAP7
Cyanide Reactivity	<2.8	2.8	mg/kg	1	09/02/14 13:20	BF	SW846 CHAP7
Ignitability (Flashpoint)	>230		Deg. F	1	09/03/14	BF	SW846 1020
Solids, Percent	52.9		%	1	09/02/14	HS	SM21 2540 B MOD.
Sulfide Reactivity	<94	94	mg/kg	1	09/02/14	BF	SW846 CHAP7

LLK 10/6/14

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MH-A20		
Lab Sample ID:	MC33244-4	**Date Sampled:**	08/28/14
Matrix:	SO - Soil	**Date Received:**	08/29/14
		Percent Solids:	58.5
Project:	Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Corrosivity as pH	8.3			1	09/02/14	MA	SW846 CHAP7
Cyanide Reactivity	<2.6	2.6	mg/kg	1	09/02/14 13:20	BF	SW846 CHAP7
Ignitability (Flashpoint)	>230		Deg. F	1	09/03/14	BF	SW846 1020
Solids, Percent	58.5		%	1	09/02/14	HS	SM21 2540 B MOD.
Sulfide Reactivity	<85	85	mg/kg	1	09/02/14	BF	SW846 CHAP7

RL = Reporting Limit

Accutest Laboratories

Report of Analysis

Client Sample ID:	MH-A4		
Lab Sample ID:	MC33244-5	**Date Sampled:**	08/28/14
Matrix:	SO - Soil	**Date Received:**	08/29/14
		Percent Solids:	47.1
Project:	Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Corrosivity as pH	7.8			1	09/02/14	MA	SW846 CHAP7
Cyanide Reactivity	<3.2	3.2	mg/kg	1	09/02/14 13:20	BF	SW846 CHAP7
Ignitability (Flashpoint)	>230		Deg. F	1	09/03/14	BF	SW846 1020
Solids, Percent	47.1		%	1	09/02/14	HS	SM21 2540 B MOD.
Sulfide Reactivity	<110	110	mg/kg	1	09/02/14	BF	SW846 CHAP7

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MH-A3		
Lab Sample ID:	MC33244-6	**Date Sampled:**	08/28/14
Matrix:	SO - Soil	**Date Received:**	08/29/14
		Percent Solids:	56.9
Project:	Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Corrosivity as pH	7.8			1	09/02/14	MA	SW846 CHAP7
Cyanide Reactivity	<2.6	2.6	mg/kg	1	09/02/14 13:20	BF	SW846 CHAP7
Ignitability (Flashpoint)	>230		Deg. F	1	09/03/14	BF	SW846 1020
Solids, Percent	56.9		%	1	09/02/14	HS	SM21 2540 B MOD.
Sulfide Reactivity	<85	85	mg/kg	1	09/02/14	BF	SW846 CHAP7

10/15/14

RL = Reporting Limit

Accutest Laboratories

Report of Analysis

Client Sample ID:	MH-C4		
Lab Sample ID:	MC33244-7	**Date Sampled:**	08/28/14
Matrix:	SO - Soil	**Date Received:**	08/29/14
		Percent Solids:	55.7
Project:	Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Corrosivity as pH	8.0			1	09/02/14	MA	SW846 CHAP7
Cyanide Reactivity	<2.7	2.7	mg/kg	1	09/02/14 13:30	BF	SW846 CHAP7
Ignitability (Flashpoint)	>230		Deg. F	1	09/03/14	BF	SW846 1020
Solids, Percent	55.7		%	1	09/02/14	HS	SM21 2540 B MOD.
Sulfide Reactivity	<90	90	mg/kg	1	09/02/14	BF	SW846 CHAP7

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MH-B2		
Lab Sample ID:	MC33244-8	**Date Sampled:**	08/28/14
Matrix:	SO - Soil	**Date Received:**	08/29/14
		Percent Solids:	68.6
Project:	Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Corrosivity as pH	7.5			1	09/02/14	MA	SW846 CHAP7
Cyanide Reactivity	<2.1	2.1	mg/kg	1	09/02/14 13:30	BF	SW846 CHAP7
Ignitability (Flashpoint)	>230		Deg. F	1	09/03/14	BF	SW846 1020
Solids, Percent	68.6		%	1	09/02/14	HS	SM21 2540 B MOD.
Sulfide Reactivity	<71	71	mg/kg	1	09/02/14	BF	SW846 CHAP7

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MH-D1		
Lab Sample ID:	MC33244-9	**Date Sampled:**	08/28/14
Matrix:	SO - Soil	**Date Received:**	08/29/14
		Percent Solids:	61.3
Project:	Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Corrosivity as pH	7.8			1	09/02/14	MA	SW846 CHAP7
Cyanide Reactivity	<2.4	2.4	mg/kg	1	09/02/14 13:30	BF	SW846 CHAP7
Ignitability (Flashpoint)	>230		Deg. F	1	09/03/14	BF	SW846 1020
Solids, Percent	61.3		%	1	09/02/14	HS	SM21 2540 B MOD.
Sulfide Reactivity	<82	82	mg/kg	1	09/02/14	BF	SW846 CHAP7

10/5/14

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MH-D2		
Lab Sample ID:	MC33244-10	**Date Sampled:**	08/28/14
Matrix:	SO - Soil	**Date Received:**	08/29/14
		Percent Solids:	60.9
Project:	Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Corrosivity as pH	7.9			1	09/02/14	MA	SW846 CHAP7
Cyanide Reactivity	<2.5	2.5	mg/kg	1	09/02/14 13:30	BF	SW846 CHAP7
Ignitability (Flashpoint)	>230		Deg. F	1	09/03/14	BF	SW846 1020
Solids, Percent	60.9		%	1	09/02/14	HS	SM21 2540 B MOD.
Sulfide Reactivity	<82	82	mg/kg	1	09/02/14	BF	SW846 CHAP7

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MH-B3		
Lab Sample ID:	MC33244-11	**Date Sampled:**	08/28/14
Matrix:	SO - Soil	**Date Received:**	08/29/14
		Percent Solids:	57.9
Project:	Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Corrosivity as pH	7.5			1	09/02/14	MA	SW846 CHAP7
Cyanide Reactivity	<2.6	2.6	mg/kg	1	09/02/14 13:30	BF	SW846 CHAP7
Ignitability (Flashpoint)	>230		Deg. F	1	09/03/14	BF	SW846 1020
Solids, Percent	57.9		%	1	09/02/14	HS	SM21 2540 B MOD.
Sulfide Reactivity	<86	86	mg/kg	1	09/02/14	BF	SW846 CHAP7

RL = Reporting Limit

Accutest Laboratories

Report of Analysis

Client Sample ID:	MH-C3		
Lab Sample ID:	MC33244-1	Date Sampled:	08/28/14
Matrix:	SO - Soil	Date Received:	08/29/14
		Percent Solids:	89.7
Project:	Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY		

Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed	By	Method
Arsenic	0.0024 U	D004	5.0	0.010	0.0024	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Barium	3.8	D005	100	0.50	0.0020	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Cadmium	0.025	D006	1.0	0.0040	0.00024	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Chromium	0.0047 B J	D007	5.0	0.010	0.00073	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Lead	0.029	D008	5.0	0.010	0.0019	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	09/03/14	09/03/14	SA	SW846 7470A [1]
Selenium	0.0086 B J	D010	1.0	0.025	0.0027	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Silver	0.00096 U	D011	5.0	0.0050	0.00096	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]

(1) Instrument QC Batch: MA17487
(2) Instrument QC Batch: MA17490
(3) Prep QC Batch: MP23556
(4) Prep QC Batch: MP23558

10/2/14

RL = Reporting Limit MDL = Method Detection Limit U = Indicates a result < MDL
MCL = Maximum Contamination Level (40 CFR 261 6/96) B = Indicates a result > = MDL but < RL

Accutest Laboratories

Report of Analysis

Client Sample ID:	MH-A1		
Lab Sample ID:	MC33244-2	Date Sampled:	08/28/14
Matrix:	SO - Soil	Date Received:	08/29/14
		Percent Solids:	80.2
Project:	Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY		

Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed	By	Method
Arsenic	0.0024 U	D004	5.0	0.010	0.0024	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Barium	1.4	D005	100	0.50	0.0020	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Cadmium	0.011	D006	1.0	0.0040	0.00024	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Chromium	0.083	D007	5.0	0.010	0.00073	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Lead	0.0030 B J	D008	5.0	0.010	0.0019	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Mercury	UJ 0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	09/03/14	09/03/14	SA	SW846 7470A [1]
Selenium	0.0069 B J	D010	1.0	0.025	0.0027	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Silver	0.00096 U	D011	5.0	0.0050	0.00096	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]

(1) Instrument QC Batch: MA17487
(2) Instrument QC Batch: MA17490
(3) Prep QC Batch: MP23556
(4) Prep QC Batch: MP23558

UK 10/2/14

RL = Reporting Limit MDL = Method Detection Limit U = Indicates a result < MDL
MCL = Maximum Contamination Level (40 CFR 261 6/96) B = Indicates a result > = MDL but < RL

Accutest Laboratories

Report of Analysis

Client Sample ID:	MH-A2		
Lab Sample ID:	MC33244-3	Date Sampled:	08/28/14
Matrix:	SO - Soil	Date Received:	08/29/14
		Percent Solids:	52.9
Project:	Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY		

Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed	By	Method
Arsenic	0.0024 U	D004	5.0	0.010	0.0024	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Barium	40.6	D005	100	5.0	0.020	mg/l	10	09/03/14	09/04/14	EAL	SW846 6010C [2]
Cadmium	0.0024 B J	D006	1.0	0.0040	0.00024	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Chromium	0.0022 B	D007	5.0	0.010	0.00073	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Lead	0.0033 B	D008	5.0	0.010	0.0019	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	09/03/14	09/03/14	SA	SW846 7470A [1]
Selenium	0.0062 B J	D010	1.0	0.025	0.0027	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Silver	0.0013 B J	D011	5.0	0.0050	0.00096	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]

(1) Instrument QC Batch: MA17487
(2) Instrument QC Batch: MA17490
(3) Prep QC Batch: MP23556
(4) Prep QC Batch: MP23558

LLK 10/2/14

RL = Reporting Limit MDL = Method Detection Limit U = Indicates a result < MDL
MCL = Maximum Contamination Level (40 CFR 261 6/96) B = Indicates a result > = MDL but < RL

Accutest Laboratories

Report of Analysis

Client Sample ID:	MH-A20		
Lab Sample ID:	MC33244-4	Date Sampled:	08/28/14
Matrix:	SO - Soil	Date Received:	08/29/14
		Percent Solids:	58.5
Project:	Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY		

Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed	By	Method
Arsenic	0.0024 U	D004	5.0	0.010	0.0024	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Barium	112	D005	100	10	0.040	mg/l	20	09/03/14	09/04/14	EAL	SW846 6010C [2]
Cadmium	0.0089	D006	1.0	0.0040	0.00024	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Chromium	0.0018 B J	D007	5.0	0.010	0.00073	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Lead	0.0019 U	D008	5.0	0.010	0.0019	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Mercury	U J 0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	09/03/14	09/03/14	SA	SW846 7470A [1]
Selenium	0.0066 B J	D010	1.0	0.025	0.0027	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Silver	0.0010 B J	D011	5.0	0.0050	0.00096	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]

(1) Instrument QC Batch: MA17487
(2) Instrument QC Batch: MA17490
(3) Prep QC Batch: MP23556
(4) Prep QC Batch: MP23558

WK 10/2/14

RL = Reporting Limit MDL = Method Detection Limit U = Indicates a result < MDL
MCL = Maximum Contamination Level (40 CFR 261 6/96) B = Indicates a result > = MDL but < RL

Accutest Laboratories

Report of Analysis

Client Sample ID:	MH-A4		
Lab Sample ID:	MC33244-5	Date Sampled:	08/28/14
Matrix:	SO - Soil	Date Received:	08/29/14
		Percent Solids:	47.1
Project:	Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY		

Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed	By	Method
Arsenic	0.0040 B J	D004	5.0	0.010	0.0024	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Barium	19.5	D005	100	5.0	0.020	mg/l	10	09/03/14	09/04/14	EAL	SW846 6010C [2]
Cadmium	0.0023 B J	D006	1.0	0.0040	0.00024	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Chromium	0.0061 B J	D007	5.0	0.010	0.00073	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Lead	0.0019 U	D008	5.0	0.010	0.0019	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	09/03/14	09/03/14	SA	SW846 7470A [1]
Selenium	0.0069 B J	D010	1.0	0.025	0.0027	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Silver	0.00096 U	D011	5.0	0.0050	0.00096	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]

(1) Instrument QC Batch: MA17487
(2) Instrument QC Batch: MA17490
(3) Prep QC Batch: MP23556
(4) Prep QC Batch: MP23558

RL = Reporting Limit MDL = Method Detection Limit U = Indicates a result < MDL
MCL = Maximum Contamination Level (40 CFR 261 6/96) B = Indicates a result > = MDL but < RL

Accutest Laboratories

Report of Analysis

Client Sample ID:	MH-A3		
Lab Sample ID:	MC33244-6	Date Sampled:	08/28/14
Matrix:	SO - Soil	Date Received:	08/29/14
		Percent Solids:	56.9
Project:	Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY		

Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed	By	Method
Arsenic	0.0024 U	D004	5.0	0.010	0.0024	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Barium	17.4	D005	100	5.0	0.020	mg/l	10	09/03/14	09/04/14	EAL	SW846 6010C [2]
Cadmium	0.0018 ~~B~~ J	D006	1.0	0.0040	0.00024	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Chromium	0.0020 ~~B~~ J	D007	5.0	0.010	0.00073	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Lead	0.0019 U	D008	5.0	0.010	0.0019	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Mercury	UJ 0.00010 ~~U~~	D009	0.20	0.00020	0.00010	mg/l	1	09/03/14	09/03/14	SA	SW846 7470A [1]
Selenium	0.0062 ~~B~~ J	D010	1.0	0.025	0.0027	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Silver	0.00096 U	D011	5.0	0.0050	0.00096	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]

(1) Instrument QC Batch: MA17487
(2) Instrument QC Batch: MA17490
(3) Prep QC Batch: MP23556
(4) Prep QC Batch: MP23558

LK 10/3/14

RL = Reporting Limit MDL = Method Detection Limit U = Indicates a result < MDL
MCL = Maximum Contamination Level (40 CFR 261 6/96) B = Indicates a result > = MDL but < RL

Accutest Laboratories

Report of Analysis

Client Sample ID:	MH-C4		
Lab Sample ID:	MC33244-7	Date Sampled:	08/28/14
Matrix:	SO - Soil	Date Received:	08/29/14
		Percent Solids:	55.7
Project:	Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY		

Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed	By	Method
Arsenic	0.0024 U	D004	5.0	0.010	0.0024	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Barium	3.6	D005	100	0.50	0.0020	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Cadmium	0.018	D006	1.0	0.0040	0.00024	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Chromium	0.0015 ~~B~~ J	D007	5.0	0.010	0.00073	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Lead	0.0019 U	D008	5.0	0.010	0.0019	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	09/03/14	09/03/14	SA	SW846 7470A [1]
Selenium	0.0087 ~~B~~ J	D010	1.0	0.025	0.0027	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Silver	0.0014 ~~B~~ J	D011	5.0	0.0050	0.00096	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]

(1) Instrument QC Batch: MA17487
(2) Instrument QC Batch: MA17490
(3) Prep QC Batch: MP23556
(4) Prep QC Batch: MP23558

CWK 10/2/14

RL = Reporting Limit MDL = Method Detection Limit U = Indicates a result < MDL
MCL = Maximum Contamination Level (40 CFR 261 6/96) B = Indicates a result > = MDL but < RL

Accutest Laboratories

Report of Analysis

Client Sample ID:	MH-B2		
Lab Sample ID:	MC33244-8	Date Sampled:	08/28/14
Matrix:	SO - Soil	Date Received:	08/29/14
		Percent Solids:	68.6
Project:	Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY		

Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed	By	Method
Arsenic	0.0024 U	D004	5.0	0.010	0.0024	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Barium	1.5	D005	100	0.50	0.0020	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Cadmium	0.044	D006	1.0	0.0040	0.00024	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Chromium	0.0066 B J	D007	5.0	0.010	0.00073	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Lead	0.0039 B J	D008	5.0	0.010	0.0019	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	09/03/14	09/03/14	SA	SW846 7470A [1]
Selenium	0.0062 B J	D010	1.0	0.025	0.0027	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Silver	0.00096 U	D011	5.0	0.0050	0.00096	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]

(1) Instrument QC Batch: MA17487
(2) Instrument QC Batch: MA17490
(3) Prep QC Batch: MP23556
(4) Prep QC Batch: MP23558

LWK 10/2/14

RL = Reporting Limit MDL = Method Detection Limit U = Indicates a result < MDL
MCL = Maximum Contamination Level (40 CFR 261 6/96) B = Indicates a result > = MDL but < RL

Accutest Laboratories

Report of Analysis

Client Sample ID:	MH-D1		
Lab Sample ID:	MC33244-9	Date Sampled:	08/28/14
Matrix:	SO - Soil	Date Received:	08/29/14
		Percent Solids:	61.3
Project:	Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY		

Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed	By	Method
Arsenic	0.0024 U	D004	5.0	0.010	0.0024	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Barium	0.47 B J	D005	100	0.50	0.0020	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Cadmium	2.8	D006	1.0	0.0040	0.00024	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Chromium	0.0092 B J	D007	5.0	0.010	0.00073	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Lead [a]	0.0039 U	D008	5.0	0.020	0.0039	mg/l	2	09/03/14	09/04/14	EAL	SW846 6010C [2]
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	09/03/14	09/03/14	SA	SW846 7470A [1]
Selenium	0.0092 B J	D010	1.0	0.025	0.0027	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Silver	0.0014 B J	D011	5.0	0.0050	0.00096	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]

(1) Instrument QC Batch: MA17487
(2) Instrument QC Batch: MA17490
(3) Prep QC Batch: MP23556
(4) Prep QC Batch: MP23558

(a) Elevated RL due to dilution required for matrix interference.

UK 10/2/14

RL = Reporting Limit MDL = Method Detection Limit U = Indicates a result < MDL
MCL = Maximum Contamination Level (40 CFR 261 6/96) B = Indicates a result > = MDL but < RL

Accutest Laboratories

Report of Analysis

Client Sample ID:	MH-D2		
Lab Sample ID:	MC33244-10	Date Sampled:	08/28/14
Matrix:	SO - Soil	Date Received:	08/29/14
		Percent Solids:	60.9
Project:	Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY		

Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed	By	Method
Arsenic	0.0024 U	D004	5.0	0.010	0.0024	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Barium	2.2	D005	100	0.50	0.0020	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Cadmium	0.038	D006	1.0	0.0040	0.00024	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Chromium	0.0014 ~~B~~ J	D007	5.0	0.010	0.00073	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Lead	0.0019 U	D008	5.0	0.010	0.0019	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Mercury UJ	0.00010 ~~U~~	D009	0.20	0.00020	0.00010	mg/l	1	09/03/14	09/03/14	SA	SW846 7470A [1]
Selenium	0.0072 ~~B~~ J	D010	1.0	0.025	0.0027	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Silver	0.0016 ~~B~~ J	D011	5.0	0.0050	0.00096	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]

(1) Instrument QC Batch: MA17487
(2) Instrument QC Batch: MA17490
(3) Prep QC Batch: MP23556
(4) Prep QC Batch: MP23558

UJ 10/2/14

RL = Reporting Limit MDL = Method Detection Limit U = Indicates a result < MDL
MCL = Maximum Contamination Level (40 CFR 261 6/96) B = Indicates a result > = MDL but < RL

Accutest Laboratories

Report of Analysis

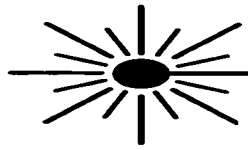
Client Sample ID:	MH-B3		
Lab Sample ID:	MC33244-11	Date Sampled:	08/28/14
Matrix:	SO - Soil	Date Received:	08/29/14
		Percent Solids:	57.9
Project:	Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY		

Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	RL	MDL	Units	DF	Prep	Analyzed	By	Method
Arsenic	0.0024 U	D004	5.0	0.010	0.0024	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Barium	0.25 B J	D005	100	0.50	0.0020	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Cadmium	0.0052	D006	1.0	0.0040	0.00024	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Chromium	0.0047 B J	D007	5.0	0.010	0.00073	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Lead	0.0019 U	D008	5.0	0.010	0.0019	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Mercury	0.00010 U	D009	0.20	0.00020	0.00010	mg/l	1	09/03/14	09/03/14	SA	SW846 7470A [1]
Selenium	0.0083 B J	D010	1.0	0.025	0.0027	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]
Silver	0.0011 B J	D011	5.0	0.0050	0.00096	mg/l	1	09/03/14	09/04/14	EAL	SW846 6010C [2]

(1) Instrument QC Batch: MA17487
(2) Instrument QC Batch: MA17490
(3) Prep QC Batch: MP23556
(4) Prep QC Batch: MP23558

RL = Reporting Limit MDL = Method Detection Limit U = Indicates a result < MDL
MCL = Maximum Contamination Level (40 CFR 261 6/96) B = Indicates a result > = MDL but < RL



ECT.CON INC.

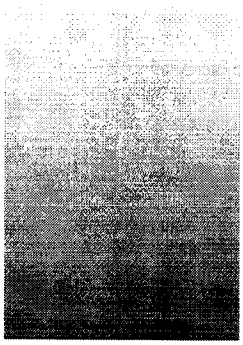
Environmental and Computer
Technology Consultants

Support Documentation

Laboratory Case Narrative

New England ACCUTEST LABORATORIES

09/05/14



Technical Report for

WSP Environmental & Energy

Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

4255-06

Accutest Job Number: MC33244

Sampling Date: 08/28/14

Report to:

WSP Environmental & Energy
11190 Sunrise Valley Dr
Reston, VA 20191
Lisa.bryda@wspgroup.com

ATTN: Lisa Bryda

Total number of pages in report: **144**

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Reza Pand
Lab Director

Client Service contact: Frank DAgostino 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

ACCUTEST LABORATORIES

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: WSP Environmental & Energy **Job No** MC33244

Site: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, **Report Date** 9/5/2014 10:51:14 AM

11 Sample(s) were collected on 08/28/2014 and were received at Accutest on 08/29/2014 properly preserved, at 0.8 Deg. C and intact. These Samples received an Accutest job number of MC33244. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Metals By Method SW846 6010C

Matrix LEACHATE **Batch ID:** MP23556

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JB75106-1ALS, MC33270-1AMS, MC33270-1AMSD, MC33270-1ASDL were used as the QC samples for metals.
- RPD(s) for Serial Dilution for Arsenic, Cadmium, Lead, Selenium, Silver are outside control limits for sample MP23556-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

Metals By Method SW846 7470A

Matrix LEACHATE **Batch ID:** MP23558

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JB75106-1ALS, MC33191-1ALS, MC33270-1AMS, MC33270-1AMSD were used as the QC samples for metals.

Wet Chemistry By Method SM21 2540 B MOD.

Matrix SO **Batch ID:** GN48139

- Sample(s) MC33240-1DUP were used as the QC samples for Solids, Percent.

Wet Chemistry By Method SW846 1020

Matrix SO **Batch ID:** GN48058

- Sample(s) MC32226-1RDUP were used as the QC samples for Ignitability (Flashpoint).

Matrix SO **Batch ID:** GN48156

- Sample(s) MC33244-11DUP were used as the QC samples for Ignitability (Flashpoint).

Wet Chemistry By Method SW846 CHAP7

Matrix SO	Batch ID: GN48144

- Sample(s) MC33244-1DUP were used as the QC samples for Corrosivity as pH.

Matrix SO	Batch ID: GP18082

- All samples were distilled within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC33244-1DUP, MC33244-1MS were used as the QC samples for Cyanide Reactivity.

Matrix SO	Batch ID: GP18083

- All samples were distilled within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC33244-1DUP, MC33244-1MS were used as the QC samples for Sulfide Reactivity.

The Accutest Laboratories of New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety.The Accutest Laboratories of NE, Laboratory Director or assignee as verified by the signature on the cover page has authorized the release of this report(MC33244).

Accutest Laboratories

Sample Summary

WSP Environmental & Energy

Job No: MC33244

Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY
Project No: 4255-06

Sample Number	Collected Date	Time	By	Received	Matrix Code	Matrix Type	Client Sample ID
MC33244-1	08/28/14	11:20	DL	08/29/14	SO	Soil	MH-C3
MC33244-2	08/28/14	11:30	DL	08/29/14	SO	Soil	MH-A1
MC33244-3	08/28/14	11:35	DL	08/29/14	SO	Soil	MH-A2
MC33244-4	08/28/14	11:40	DL	08/29/14	SO	Soil	MH-A20
MC33244-5	08/28/14	11:50	DL	08/29/14	SO	Soil	MH-A4
MC33244-6	08/28/14	12:00	DL	08/29/14	SO	Soil	MH-A3
MC33244-7	08/28/14	12:35	DL	08/29/14	SO	Soil	MH-C4
MC33244-8	08/28/14	12:45	DL	08/29/14	SO	Soil	MH-B2
MC33244-9	08/28/14	12:50	DL	08/29/14	SO	Soil	MH-D1
MC33244-10	08/28/14	13:10	DL	08/29/14	SO	Soil	MH-D2
MC33244-11	08/28/14	13:20	DL	08/29/14	SO	Soil	MH-B3

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

Chain of Custody

CHAIN OF CUSTODY RECORD

Page 1 of 1

Project Number:	Site and Location:	Matrices: S = Soil; Aq = Water; A = Air; Bu = Bulk; W = Wipe; Bi = Biota; OW = Oily Waste; O = Other
4255.06	EPT Ithaca Ithaca NY	
Contact Name:	**Contact Email:**	
Lisa Bryda	Lisa.Bryda@lsgroup.com	
Sampler's Name:	**Sampler's Signature:**	
Daniel Lasicki	[signature]	

Requested Analyses: TCLP Metals; Reactive Cyanide; Reactive Sulfides; Corrosivity

N° - MC 33244

Sample Identification		Depth	Date	Time	Matrix	Number of Containers	TCLP Metals	Reactive Cyanide	Reactive Sulfides	Corrosivity						Remarks
MH-C3	-1	–	8/28/14	1120	S	1	✓	✓	✓	✓						
MH-A1	-2	–	8/28/14	1130	S	1	✓	✓	✓	✓						
MH-A2	-3	–	8/28/14	1135	S	1	✓	✓	✓	✓						
MH-A20	-4	–	8/28/14	1140	S	1	✓	✓	✓	✓						
MH-A4	-5	–	8/28/14	1150	S	1	✓	✓	✓	✓						
MH-A3	-6	–	8/28/14	1200	S	1	✓	✓	✓	✓						
MH-C4	-7	–	8/28/14	1235	S	1	✓	✓	✓	✓						
MH-B2	-8	–	8/28/14	1245	S	1	✓	✓	✓	✓						
MH-D1	-9	–	8/28/14	1250	S	1	✓	✓	✓	✓						
MH-D2	-10	–	8/28/14	1310	S	1	✓	✓	✓	✓						
MH-B3	-11	–	8/28/14	1320	S	1	✓	✓	✓	✓						
		–														
																14D

Relinquished by (Signature):	Date / Time	Received by (Signature):	Laboratory Name:
[signature]	8/28/14 1000		Accutest
Relinquished by (Signature):	**Date / Time**	**Received by (Signature):**	**Laboratory Location:**
FEDX	8-29-14 930	[signature]	Marlborough MA
Turn-Around Time:		**Tracking Number:**	**Custody Seal Numbers:**
Standard		8041 1713 0766	02133
			Method of Shipment: FedEx

WSP Environment & Energy

0.8°C

- [x] Reston Office: 11190 Sunrise Valley Dr., #300, Reston, VA 20191 / Tel: 703-709-6500
- [ ] Pittsburgh Office: 750 Holiday Dr., #410, Pittsburgh, PA 15220 / Tel: 412-604-1040
- [ ] San Jose Office: 2025 Gateway Place, #435, San Jose, CA 95110 / Tel: 408-453-6100
- [ ] New Jersey Office: 200 Cottontail Ln., Somerset, NJ 08873 / Tel: 732-564-0888
- [ ] Denver Office: 4600 South Ulster, #930, Denver, CO 80237 / Tel: 303-850-9200
- [ ] Minneapolis Office: 123 North 3rd St., #808, Minneapolis, MN 55401 / Tel: 612-343-0510
- [ ] Woburn Office: 300 Trade Center, Suite 4690, Woburn, MA 01801
- [ ] Cazenovia Office: 5 Sullivan St., Cazenovia, NY 13035 / Tel: 315-655-3900

5.1

5

MC33244: Chain of Custody

Page 1 of 2

ACCUTEST LABORATORIES

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: MC33244 **Client:** WSP **Immediate Client Services Action Required:** No

Date / Time Received: 8/29/2014 **Delivery Method:** **Client Service Action Required at Login:** No

Project: 4255.06 **No. Coolers:** 1 **Airbill #'s:**

Cooler Security	Y or N		Y or N
1. Custody Seals Present:	☑ ☐	3. COC Present:	☑ ☐
2. Custody Seals Intact:	☑ ☐	4. Smpl Dates/Time OK	☑ ☐

Cooler Temperature	Y or N
1. Temp criteria achieved:	☑ ☐
2. Cooler temp verification:	Infared gun
3. Cooler media:	Ice (bag)

Quality Control Preservation	Y or N	N/A
1. Trip Blank present / cooler:	☐ ☐	☑
2. Trip Blank listed on COC:	☐ ☐	☑
3. Samples preserved properly:	☑ ☐	
4. VOCs headspace free:	☐ ☐	☑

Sample Integrity - Documentation	Y or N
1. Sample labels present on bottles:	☑ ☐
2. Container labeling complete:	☑ ☐
3. Sample container label / COC agree:	☑ ☐

Sample Integrity - Condition	Y or N
1. Sample recvd within HT:	☑ ☐
2. All containers accounted for:	☑ ☐
3. Condition of sample:	Intact

Sample Integrity - Instructions	Y or N	N/A
1. Analysis requested is clear:	☑ ☐	
2. Bottles received for unspecified tests	☐ ☑	
3. Sufficient volume recvd for analysis:	☑ ☐	
4. Compositing instructions clear:	☐ ☐	☑
5. Filtering instructions clear:	☐ ☐	☑

Comments

Accutest Laboratories
V:508.481.6200

495 Technology Center West, Bldg One
F: 508.481.7753

Marlborough, MA
www/accutest.com

5.1

5

MC33244: Chain of Custody
Page 2 of 2

Worksheets

ACCUTEST LABORATORIES

Toxic Characteristic Leaching Procedure - Organic / Inorganic

Method: SW846 1311 **Product: TCLPE**

Batch ID: TCLPE_090214-1 **Start Date:** 9/2/2014 **Rotator ID:** 1 **(Rev/Min 30 +/- 2)** 30

Analyst: HAMIDS **End Date:** 9/3/2014 **Rotator ID:** 2 **(Rev/Min 30 +/- 2)** 30

		Analysis Type			Rotation Period		Prelim Evaluation			Extraction Wts		Extraction Fluid				Extraction Vessel	Rm Temp						
Sample #	Bot #	Anal Type	Inorg LS	Org LS	Start Time	End Time	% Sol	Step1 pH	Step2 pH	Gram Total	Gram Solid	Fluid #	pH	Vol mls	Final pH	Ves #	Rotator id	Start Temp	Start Temp CF	Corr Start Temp	End Temp	End Temp CF	Corr End Temp
Buffer 4.0															4.01								
MB		M		N/A	15:00	8:00	100	4.91	N/A	100	100.0	1	4.93	2000	4.94	10	1	22	0.5	22.5	22	0.5	22.5
JB75106-1A	1	M	JB51106-1A	N/A	15:00	8:00	100	7.29	1.72	100	100.0	1	4.93	2000	4.99	51	1	22	0.5	22.5	22	0.5	22.5
MC32861-4R	2	M	JB51106-1A	N/A	15:00	8:00	100	7.43	1.85	100	100.0	1	4.93	2000	5.58	77	1	22	0.5	22.5	22	0.5	22.5
MC33244-1	1	M	JB51106-1A	N/A	15:00	8:00	100	9.71	1.66	100	100.0	1	4.93	2000	5.46	18	1	22	0.5	22.5	22	0.5	22.5
MC33244-2	1	M	JB51106-1A	N/A	15:00	8:00	100	9.67	1.64	100	100.0	1	4.93	2000	5.21	34	1	22	0.5	22.5	22	0.5	22.5
MC33244-3	1	M	JB51106-1A	N/A	15:00	8:00	100	9.31	1.69	100	100.0	1	4.93	2000	6.21	17	1	22	0.5	22.5	22	0.5	22.5
MC33244-4	1	M	JB51106-1A	N/A	15:00	8:00	100	8.79	1.67	100	100.0	1	4.93	2000	6.67	11	1	22	0.5	22.5	22	0.5	22.5
MC33244-5	1	M	JB51106-1A	N/A	15:00	8:00	100	8.92	1.62	100	100.0	1	4.93	2000	5.42	28	1	22	0.5	22.5	22	0.5	22.5
MC33244-6	1	M	JB51106-1A	N/A	15:00	8:00	100	8.79	1.68	100	100.0	1	4.93	2000	6.20	48	1	22	0.5	22.5	22	0.5	22.5
MC33244-7	1	M	JB51106-1A	N/A	15:00	8:00	100	8.57	1.62	100	100.0	1	4.93	2000	6.37	27	1	22	0.5	22.5	22	0.5	22.5
MC33244-8	1	M	JB51106-1A	N/A	15:00	8:00	100	8.91	1.63	100	100.0	1	4.93	2000	5.73	37	1	22	0.5	22.5	22	0.5	22.5
Buffer 7.0															7.00								
MC33244-9	1	M	JB51106-1A	N/A	15:00	8:00	100	8.95	1.60	25	25.0	1	4.93	500	5.98	H45	1	22	0.5	22.5	22	0.5	22.5
MC33244-10	1	M	JB51106-1A	N/A	15:00	8:00	100	9.07	1.62	100	100.0	1	4.93	2000	6.52	58	1	22	0.5	22.5	22	0.5	22.5
MC33244-11	1	M	JB51106-1A	N/A	15:00	8:00	100	9.01	1.62	100	100.0	1	4.93	2000	5.62	30	2	22	0.5	22.5	22	0.5	22.5
MC33121-5R	1	M	JB51106-1A	N/A	15:00	8:00	100	7.78	1.65	100	100.0	1	4.93	2000	6.08	35	2	22	0.5	22.5	22	0.5	22.5
MC33246-1	2	M	JB51106-1A	N/A	15:00	8:00	100	8.93	1.59	100	100.0	1	4.93	2000	5.05	49	2	22	0.5	22.5	22	0.5	22.5
MC33270-1A	1	M	MC33270-1A	N/A	15:00	8:00	19.435	6.48	1.69	514.54	100.0	1	4.93	2000	5.60	71	2	22	0.5	22.5	22	0.5	22.5
MC33270-2A	1	M	MC33270-1A	N/A	15:00	8:00	15.746	6.45	1.75	317.54	50.0	1	4.93	1000	5.17	65	2	22	0.5	22.5	22	0.5	22.5
Buffer 7.0															7.01								

ACCUTEST LABORATORIES

Toxic Characteristic Leaching Procedure - Organic / Inorganic

Method: SW846 1311 **Product: TCLPE** TCLPE_090214-1

Comments and Additional Information:

(a) Acceptance criteria for room temperature is 23 -/+ Deg. C

(b)% Solids in preliminary solid determination if not 100%, then TCLP % solids determination must be performed.

(C) Record all pH values to 2 places past the decimal point and all weight to 1 place past the decimal point.

Thermometer ID	OP 010	**Extraction Fluid #1**	RGT-42199-TCLP
pH Meter ID	520A-ORION	**Extraction Fluid #2**	
Balance ID	ACC-5	**TCLP filter paper**	400081-4147
HNO3 (preserve)	VENDOR-14860	**pH Buffer** 4.00	VENDOR-14745
Filter acid rinse sln		**pH Buffer** 7.00	VENDOR-14589
1 N HCL	RGT-41477-TCLP	**pH Buffer**	

Rev Date 4/2/09

Comments: Note 1: Thermometer OP 010 (Min / Max) was within acceptable range with correction factor of 0.5 DEG. C. Note 2: MC33244-9 and MC33270-2A limited volume. Note 3: MC33270-1A weigh in 4 cups: 134.4, 141.58, 140.05 and 88.52 grams. MC33270-2A weigh in 3 cups: 130.42, 122.11 and 65.0 grams. Note 4: ICP Metal Spike Lot # : METSTK-1158-METALS. Note 5 : Hg Metal Spike Lot # : MESTD-34945-HG-1.

Approved By: mehdia **Date:** 9/4/2014 10:22:33 AM

Form: GN-050 Rev Date 4/2/09

PERCENT SOLIDS

Preservative - Cool < 4C
Hold Time - 7 days

	Sample Date	Sample ID	Laboratory ID	Matrix	Preservative	Days to Analysis	Date Analyzed	Dish Wgt	Sample Mass Wet	Sample Mass Dry	Calcd %S	Rptd %S
1	08/28/14	MH-C3	MC33244-1	Solid	ok	5	9/2/14	19.448	26.961	26.184	89.7	89.7
2	08/28/14	MH-A1	MC33244-2	Solid	ok	5	9/2/14	22.787	30.221	28.746	80.2	80.2
3	08/28/14	MH-A2	MC33244-3	Solid	ok	5	9/2/14	26.084	34.896	30.746	52.9	52.9
4	08/28/14	MH-A20	MC33244-4	Solid	ok	5	9/2/14	21.386	27.917	25.208	58.5	58.5
5	08/28/14	MH-A4	MC33244-5	Solid	ok	5	9/2/14	21.133	31.822	26.167	47.1	47.1
6	08/28/14	MH-A3	MC33244-6	Solid	ok	5	9/2/14	20.848	31.503	26.908	56.9	56.9
7	08/28/14	MH-C4	MC33244-7	Solid	ok	5	9/2/14	18.9	26.897	23.353	55.7	55.7
8	08/28/14	MH-B2	MC33244-8	Solid	ok	5	9/2/14	21.727	29.494	27.059	68.6	68.6
9	08/28/14	MH-D1	MC33244-9	Solid	ok	5	9/2/14	23.192	30.753	27.827	61.3	61.3
10	08/28/14	MH-D2	MC33244-10	Solid	ok	5	9/2/14	26.584	34.842	31.615	60.9	60.9
11	08/28/14	MH-B3	MC33244-11	Solid	ok	5	9/2/14	26.95	34.973	31.598	57.9	57.9

Percent Solids Raw Data Summary

Job Number: MC33244
Account: WSPVAR WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

Sample: MC33244-1 ClientID: MH-C3	Analyzed: 02-SEP-14 by HS		Method: SM21 2540 B MOD.
Wet Weight (Total)	26.961	g	
Tare Weight	19.448	g	
Dry Weight (Total)	26.184	g	
Solids, Percent	**89.7**	%	
Sample: MC33244-2 ClientID: MH-A1	Analyzed: 02-SEP-14 by HS		Method: SM21 2540 B MOD.
Wet Weight (Total)	30.221	g	
Tare Weight	22.787	g	
Dry Weight (Total)	28.746	g	
Solids, Percent	**80.2**	%	
Sample: MC33244-3 ClientID: MH-A2	Analyzed: 02-SEP-14 by HS		Method: SM21 2540 B MOD.
Wet Weight (Total)	34.896	g	
Tare Weight	26.084	g	
Dry Weight (Total)	30.746	g	
Solids, Percent	**52.9**	%	
Sample: MC33244-4 ClientID: MH-A20	Analyzed: 02-SEP-14 by HS		Method: SM21 2540 B MOD.
Wet Weight (Total)	27.917	g	
Tare Weight	21.386	g	
Dry Weight (Total)	25.208	g	
Solids, Percent	**58.5**	%	
Sample: MC33244-5 ClientID: MH-A4	Analyzed: 02-SEP-14 by HS		Method: SM21 2540 B MOD.
Wet Weight (Total)	31.822	g	
Tare Weight	21.133	g	
Dry Weight (Total)	26.167	g	
Solids, Percent	**47.1**	%	
Sample: MC33244-6 ClientID: MH-A3	Analyzed: 02-SEP-14 by HS		Method: SM21 2540 B MOD.
Wet Weight (Total)	31.503	g	
Tare Weight	20.848	g	
Dry Weight (Total)	26.908	g	
Solids, Percent	**56.9**	%	

8.4

Percent Solids Raw Data Summary

Job Number: MC33244
Account: WSPVAR WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

Sample: MC33244-7	Analyzed: 02-SEP-14 by HS		Method: SM21 2540 B MOD.
ClientID: MH-C4			
Wet Weight (Total)	26.897	g	
Tare Weight	18.9	g	
Dry Weight (Total)	23.353	g	
Solids, Percent	**55.7**	%	
Sample: MC33244-8	Analyzed: 02-SEP-14 by HS		Method: SM21 2540 B MOD.
ClientID: MH-B2			
Wet Weight (Total)	29.494	g	
Tare Weight	21.727	g	
Dry Weight (Total)	27.059	g	
Solids, Percent	**68.6**	%	
Sample: MC33244-9	Analyzed: 02-SEP-14 by HS		Method: SM21 2540 B MOD.
ClientID: MH-D1			
Wet Weight (Total)	30.753	g	
Tare Weight	23.192	g	
Dry Weight (Total)	27.827	g	
Solids, Percent	**61.3**	%	
Sample: MC33244-10	Analyzed: 02-SEP-14 by HS		Method: SM21 2540 B MOD.
ClientID: MH-D2			
Wet Weight (Total)	34.842	g	
Tare Weight	26.584	g	
Dry Weight (Total)	31.615	g	
Solids, Percent	**60.9**	%	
Sample: MC33244-11	Analyzed: 02-SEP-14 by HS		Method: SM21 2540 B MOD.
ClientID: MH-B3			
Wet Weight (Total)	34.973	g	
Tare Weight	26.95	g	
Dry Weight (Total)	31.598	g	
Solids, Percent	**57.9**	%	

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Cyanide Reactivity	GP18082/GN48138	1.5	0.0	mg/kg	250	27.7	11.1	-%
Sulfide Reactivity	GP18083/GN48140	50	0.0	mg/kg	450	400	88.9	-%

Associated Samples:
Batch GP18082: MC33244-1, MC33244-2, MC33244-3, MC33244-4, MC33244-5, MC33244-6, MC33244-7, MC33244-8, MC33244-9, MC33244-10, MC33244-11
Batch GP18083: MC33244-1, MC33244-2, MC33244-3, MC33244-4, MC33244-5, MC33244-6, MC33244-7, MC33244-8, MC33244-9, MC33244-10, MC33244-11
(*) Outside of QC limits

8.1

8

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Corrosivity as pH	GN48144	MC33244-1		7.6	7.6	0.0	0-%
Cyanide Reactivity	GP18082/GN48138	MC33244-1	mg/kg	0.0	0.0	0.0	0-20%
Ignitability (Flashpoint)	GN48058	MC32226-1R	Deg. F	>230	>230	0.0	0-20%
Ignitability (Flashpoint)	GN48156	MC33244-11	Deg. F	>230	>230	0.0	0-20%
Solids, Percent	GN48139	MC33240-1	%	79.8	80.3	0.6	0-20%
Sulfide Reactivity	GP18083/GN48140	MC33244-1	mg/kg	0.0	0.0	0.0	0-20%

Associated Samples:
Batch GN48058: MC33244-1, MC33244-2, MC33244-3, MC33244-4, MC33244-5, MC33244-6, MC33244-7, MC33244-8, MC33244-9, MC33244-10
Batch GN48139: MC33244-1, MC33244-2, MC33244-3, MC33244-4, MC33244-5, MC33244-6, MC33244-7, MC33244-8, MC33244-9, MC33244-10, MC33244-11
Batch GN48144: MC33244-1, MC33244-2, MC33244-3, MC33244-4, MC33244-5, MC33244-6, MC33244-7, MC33244-8, MC33244-9, MC33244-10, MC33244-11
Batch GN48156: MC33244-11
Batch GP18082: MC33244-1, MC33244-2, MC33244-3, MC33244-4, MC33244-5, MC33244-6, MC33244-7, MC33244-8, MC33244-9, MC33244-10, MC33244-11
Batch GP18083: MC33244-1, MC33244-2, MC33244-3, MC33244-4, MC33244-5, MC33244-6, MC33244-7, MC33244-8, MC33244-9, MC33244-10, MC33244-11
(*) Outside of QC limits

8.2 8

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Cyanide Reactivity	GP18082/GN48138	MC33244-1	mg/kg	0.0	279	28.3	10.2	-%
Sulfide Reactivity	GP18083/GN48140	MC33244-1	mg/kg	0.0	502	390	77.7	-%

MH-C3

Associated Samples:
Batch GP18082: MC33244-1, MC33244-2, MC33244-3, MC33244-4, MC33244-5, MC33244-6, MC33244-7, MC33244-8, MC33244-9, MC33244-10, MC33244-11
Batch GP18083: MC33244-1, MC33244-2, MC33244-3, MC33244-4, MC33244-5, MC33244-6, MC33244-7, MC33244-8, MC33244-9, MC33244-10, MC33244-11
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

8.3
8

pH Initial

	Sample Date	Sample ID	Laboratory ID	Matrix	Days to Analysis	Date Analyzed	DF
1	08/28/14	MH-C3	MC33244-1	Solid	5	9/2/14	1X
2	08/28/14	MH-A1	MC33244-2	Solid	5	9/2/14	1X
3	08/28/14	MH-A2	MC33244-3	Solid	5	9/2/14	1X
4	08/28/14	MH-A20	MC33244-4	Solid	5	9/2/14	1X
5	08/28/14	MH-A4	MC33244-5	Solid	5	9/2/14	1X
6	08/28/14	MH-A3	MC33244-6	Solid	5	9/2/14	1X
7	08/28/14	MH-C4	MC33244-7	Solid	5	9/2/14	1X
8	08/28/14	MH-B2	MC33244-8	Solid	5	9/2/14	1X
9	08/28/14	MH-D1	MC33244-9	Solid	5	9/2/14	1X
10	08/28/14	MH-D2	MC33244-10	Solid	5	9/2/14	1X
11	08/28/14	MH-B3	MC33244-11	Solid	5	9/2/14	1X

Sample MH-C3

	AMOUNT FOUND
Sample	7.6
Lab Dup	7.6
RPD	0.0
Rptd	0

RPD = ((LCS-LCD)/((LCS+LCSD)/2))*100

Ignitability

	Sample Date	Sample ID	Laboratory ID	Matrix	Days to Analysis	Date Analyzed
1	08/28/14	MH-C3	MC33244-1	Solid	6	9/3/14
2	08/28/14	MH-A1	MC33244-2	Solid	6	9/3/14
3	08/28/14	MH-A2	MC33244-3	Solid	6	9/3/14
4	08/28/14	MH-A20	MC33244-4	Solid	6	9/3/14
5	08/28/14	MH-A4	MC33244-5	Solid	6	9/3/14
6	08/28/14	MH-A3	MC33244-6	Solid	6	9/3/14
7	08/28/14	MH-C4	MC33244-7	Solid	6	9/3/14
8	08/28/14	MH-B2	MC33244-8	Solid	6	9/3/14
9	08/28/14	MH-D1	MC33244-9	Solid	6	9/3/14
10	08/28/14	MH-D2	MC33244-10	Solid	6	9/3/14
11	08/28/14	MH-B3	MC33244-11	Solid	6	9/3/14

Sample MH-B3

	AMOUNT FOUND
Sample	<230
Lab Dup	<230
RPD	#VALUE!
Rptd	0

RPD = ((LCS-LCD)/((LCS+LCSD)/2))*100

TEST: CORROSIVITY SW846 CHAP7 Matrix: Soil/ SW846 9045D ☑

INSTRUMENT/ID 520 Aorion Liquid/ SW846 9040C ☐

Date of calibration: 9-2-14 Temperature of Calibration Buffers: 20.0°C GN# 48144

Dup Sample ID: MC33244-1 ORIG: 7.6 DUP 7.6 RPD: 0.0 %

BOT#	Sample ID	GL ML	Vol DI ml	PH	PH	PH	Temp C	Temp. Corrected PH	Analyst Date	QC Review
	Buffer 4.0	60ml		4.03			20.0	4.0	9-2-14 MA	9/3/14
1	DUP MC33244-1	20.0	20.0	7.57	7.63		20.0	7.6 ✓		
1	-1			7.59	7.62		20.0	7.6 ✓		
1	-2			6.90	6.91		20.0	6.9		
1	-3			7.60	7.63		20.0	7.6		
1	-4			8.26	8.30		20.0	8.3		
1	-5			7.78	7.80		20.0	7.8		
1	-6			7.81	7.83		20.0	7.8		
1	-7			7.99	8.02		20.0	8.0		
1	-8			7.53	7.54		20.0	7.5		
1	-9			7.76	7.80		20.0	7.8		
	Buffer 7.0	60ml		7.01			20.0	7.0		
1	MC33244-10	20.0	20.0	7.88	7.93		20.0	7.9		
1	-11			7.52	7.54		20.0	7.5		
	9-2-14 MA									
	Buffer 10.0	60ml		9.99			20.0	10.0		

Comment: _____

GN005-02 (9/10/04)

38

Accutest Laboratories of New England, Inc.

FLASHPOINT/IGNITIBILITY

Method: SW 846 1020A

Corrected FP= F + 0.42 (101.3- Kpa)

GN 48058

Instrument: Setaflash 1

MATRIX: Soil

Sample Desc.	Bot #	Pre Test	Rep 1	Rep 2	Rep 3	Kpa	Results	Comments	Init/Date	QCRev./Date
MC32226-1R D1	2	>230°F	>230°F			101.4	>230°F		BF/8-21-14	8/21/14
MC32226-1R	2	>230°F	>230°F			↓	>230°F		↓	↓
MC33041-1	1	>230°F	>230°F			101.3	>230°F		BF/8-27-14	8/28/14
MC33087-3	1	>230°F	>230°F				>230°F			
MC33084-1	4	>230°F	>230°F				>230°F			
MC33084-2	4	>230°F	>230°F				>230°F			
MC33084-3	4	>230°F	>230°F				>230°F			
MC33084-4	4	>230°F	>230°F				>230°F			
MC32946-1BR	1	>230°F	>230°F				>230°F			
MC32946-1R	1	>230°F	>230°F				>230°F			
MC33191-1	1	>230°F	>230°F			101.3	>230°F		BF/8-28-14	8/29/14
MC33244-1	1	>230°F	>230°F			101.3	>230°F		BF/9-3-14	9/4/14
MC33244-2	1	>230°F	>230°F				>230°F			
MC33244-3	1	>230°F	>230°F				>230°F			
MC33244-4	1	>230°F	>230°F				>230°F			
MC33244-5	1	>230°F	>230°F				>230°F			
MC33244-6	1	>230°F	>230°F				>230°F			
MC33244-7	1	>230°F	>230°F				>230°F			
MC33244-8	1	>230°F	>230°F				>230°F			
MC33244-9	1	>230°F	>230°F				>230°F			
MC33244-10	1	>230°F	>230°F			↓	>230°F		↓	↓
INIT. CHK1 p-xylene	-	80°F	80°F	80°F		101.4	80°F	LOT# vendor-13083	BF/8-21-14	8/21/14
END CHK1 n-hel	-	98°F	98°F	98°F		↓	98°F	LOT# vendor-13309	↓	↓
INIT. CHK2 p-xylene	-	80°F	80°F	80°F		101.3	80°F	LOT# vendor-13083	BF/8-27-14	8/28/14
END CHK2 n-hel	-	98°F	98°F	98°F		↓	98°F	LOT# vendor-13309	↓	↓
INIT. CHK3 p-xylene	-	80°F	80°F	80°F		101.3	80°F	LOT# vendor-13083	BF/8-28-14	8/29/14
END CHK3 n-hel	-	98°F	98°F	98°F		↓	98°F	LOT# vendor-13309	↓	↓
INIT. CHK4 p-xylene	-	80°F	80°F	80°F		101.3	80°F	LOT# vendor-13083	BF/9-3-14	9/4/14
END CHK4 n-hel	-	98°F	98°F	98°F		↓	98°F	LOT# vendor-13309	↓	↓

GN030-04 (9/22/06)

33

9.1

6

Accutest Laboratories of New England, Inc.

FLASHPOINT/IGNITIBILITY

Method: SW 846 1020A

Corrected FP= F + 0.42 (101.3- Kpa)

GN 48156

Instrument: Setaflash 1

MATRIX: Soil

Sample Desc.	Bot #	Pre Test	Rep 1	Rep 2	Rep 3	Kpa	Results	Comments	Init./Date	QCRev./Date
MC33244-11 D1	1	>230°F	>230°F			101.3	>230°F		BS/9-3-14	9/4/14
MC33244-11	1	>230°F	>230°F			↓	>230°F		↓	↓
INIT. CHK1 p-xylene	—	80°F	80°F	80°F		101.3	80°F	LOT# Vendor-13083	BS/9-3-14	9/4/14
END CHK1 n-butanol	—	98°F	98°F	98°F		↓	98°F	LOT# Vendor-13309	↓	↓
INIT. CHK2								LOT#		
END CHK2								LOT#		
INIT. CHK3								LOT#		
END CHK3								LOT#		
INIT. CHK4								LOT#		
END CHK4								LOT#		

GN030-04 (9/22/06)

35

Sulfide

Preservative - pH >9 w NaOH; Cool < 4C
Hold Time - 7 days to prep/analysis

	Sample Date	Sample ID	Laboratory ID	Matrix	Preservative	Days to Analysis	Date Analyzed	DF
1	08/28/14	MH-C3	MC33244-1	Solid	ok	5	9/2/14	1X
2	08/28/14	MH-A1	MC33244-2	Solid	ok	5	9/2/14	1X
3	08/28/14	MH-A2	MC33244-3	Solid	ok	5	9/2/14	1X
4	08/28/14	MH-A20	MC33244-4	Solid	ok	5	9/2/14	1X
5	08/28/14	MH-A4	MC33244-5	Solid	ok	5	9/2/14	1X
6	08/28/14	MH-A3	MC33244-6	Solid	ok	5	9/2/14	1X
7	08/28/14	MH-C4	MC33244-7	Solid	ok	5	9/2/14	1X
8	08/28/14	MH-B2	MC33244-8	Solid	ok	5	9/2/14	1X
9	08/28/14	MH-D1	MC33244-9	Solid	ok	5	9/2/14	1X
10	08/28/14	MH-D2	MC33244-10	Solid	ok	5	9/2/14	1X
11	08/28/14	MH-B3	MC33244-11	Solid	ok	5	9/2/14	1X

Sulfide Calculations

LCS/LCSD Laboratory limits used for validation unless indicated otherwise.

Sample GP18083 Compound sulfide

	AMOUNT FOUND	AMOUNT SPIKED	%R	FORM 3
LCS	400	450	89%	88.9

Recovery = ((Amount Found)/Amount Spiked)*100
RPD = ((LCS-LCD)/((LCS+LCSD)/2))*100

Analytical Duplicate

Sample MH-C3

	AMOUNT FOUND
Sample	0
Lab Dup	0
RPD	#DIV/0!
Rptd	0

RPD = ((LCS-LCD)/((LCS+LCSD)/2))*100

MS/MSD Laboratory limits used for validation unless indicated otherwise.

Sample MH-C3 Compound Sulfide

	AMOUNT FOUND	NATIVE AMOUNT	AMOUNT SPIKED	%R	FORM 3
MS	390	0	502	78%	77.8

Recovery = ((Amount Found-Amount Native)/Amount Spiked)*100
RPD = ((MS-MSD)/((MS+MSD)/2))*100

PDS **None** Laboratory limits used for validation unless indicated otherwise.

Sample Calculations

		MH-C3 MS		MH-C3 MS 390mg/Kg
A	Normality Iodine	0.025	Normality Iodine	0.025
B	mL iodine	20	mL iodine	20
C	Normality NaSO	0.025	Normality NaSO	0.025
D	mL NaSO	16.5	mL NaSO	16.5
E	ml Sample	100	ml Sample	0.1
	Conc mg/L	14.000	32.06/2	16.03
			Conc mg/L	14.026
			g sample	10
			ml Dist vole	250
			%S	0.897
			conc mg/Kg	390.921126

Sulfide (mg/L) = [((A*B)-(C*D))*16000]/E Sulfide (mg/L) = [((A*B)-(C*D))*32.03/2]/E

ACCUTEST

Protected Worksheet MGN 113-01
(Format edits must be done by Dept. Manager)

Method: SW846 Chapter 7/9034 (Aq) ○
SW846 Chapter 7/9034 (Solid) ◉

GN Batch: GN48140
Date: 09/02/14

Analyst: BIJANF

Test: SREAC

		Reagent LOT#
Sod. Thiosulfate Normality:	0.025	VENDOR-14906
Iodine Normality:	0.025	RGT-42059-SREAC
Normality of HCl:	6N	RGT-42134-S
Sulfide Check Standard		GNSTD-34935-SREAC-1
Starch		

Iodine Standardization

	ML Iodine	Start Titrant	End Titrant	Total ML	Ave. Ml of Titrant
STD#1	20	0	20	20	20
STD#2	20	20	40	20	

MS Sample ID: MC33244-1 Original: <56 MS: 390 Spk Amt 502 %REC 78%
Dup Sample ID: MC33244-1 Original: <56 Duplicate: <56 RPD: 0.0%
Method Blank Date 9/2/2014 Result: <50 RL: 50 <MDL? y
Spk Blk (1): 400 Spk Blk(2) Spike AMT 450 %REC (1) 89% %REC (2) %RPD
Sulfide Check Standard: GNSTD-34935-SREAC-1 Known 537.00 Res 450 %REC 84%

Bottle #	Sample ID	Iodine (ML)	6N HCl (50 ML)	6N HCL (100ML)	Initial Reading for titrant (ML)	Final Reading for titrant (ML)	Titrant Total (ML)	Sample (G)	Final Volume of Distillate	Result (mg/l)	Final Result (mg/kg)	RL
	GP18083-MB1	5	0.5	1.00	0	5	5.00	10.00	250	0.0	0.0	50
	GP18083-B1	20	0.8	1.60	5	21	16.00	10.00	250	16.0	400.0	50
	GP18083-S1	20	0.8	1.60	21	37.5	16.50	10.00	250	14.0	350.0	50
	GP18083-D1	5	0.5	1.00	37.5	42.5	5.00	10.00	250	0.0	0.0	50
	MC33244-1	5	0.5	1.00	42.5	47.5	5.00	10.00	250	0.0	0.0	50
	MC33244-2	5	0.5	1.00	0	5	5.00	10.10	250	0.0	0.0	50
	MC33244-3	5	0.5	1.00	5	10	5.00	10.10	250	0.0	0.0	50
	MC33244-4	5	0.5	1.00	10	15	5.00	10.00	250	0.0	0.0	50
	MC33244-5	5	0.5	1.00	15	20	5.00	10.00	250	0.0	0.0	50
	MC33244-6	5	0.5	1.00	20	25	5.00	10.30	250	0.0	0.0	50
	MC33244-7	5	0.5	1.00	25	30	5.00	10.00	250	0.0	0.0	50
	MC33244-8	5	0.5	1.00	30	35	5.00	10.30	250	0.0	0.0	50
	MC33244-9	5	0.5	1.00	35	40	5.00	10.00	250	0.0	0.0	50
	MC33244-10	5	0.5	1.00	40	45	5.00	10.00	250	0.0	0.0	50
	MC33244-11	5	0.5	1.00	45	50	5.00	10.10	250	0.0	0.0	50
	MC33191-1	5	0.5	1.00	0	5	5.00	10.20	250	0.0	0.0	50
	SCSCONF	20	1.2	2.40	0	15.5	15.50	10.00	250	18.0	450.0	50

9-2-14 BF

Comments:

Analyst: Date: 9-2-14 QC Reviewer: Date: 9/3/14

GN48140

QC Reports:

ACCUTEST

Distillation

Protected Worksheet MGN127-01
(Format edits must be done by Dept. manager)

Analyst:	BIJANF	Date	9/2/14	Batch ID	GP18083	Matrix	Solids
QC Sample	MC33244-1	Balance ID	ACC-5	pH Meter ID	N/A	Block ID	N/A

Analysis Type

CN EPA 335.4 ○	CN SW846 9010B ○	CN-A SM21 4500CN-G/335.4 ○	CN-A SW846 9010 ○
PAC MADEP ○	CREAC Chap 7 ○	SREAC Chap7 ◉	CNWAD SM20 4500CN-I ○

Sample ID	Bot #	ID	Interfere Chk CL	Interfere Chk S	Init. pH	SMPL Amt G	DIST Vol ML	Start Time	End Time	Comments/Spike
GP18083-MB1		N/A	N/A	N/A	N/A	10	250	8:55	9:25	
GP18083-B1		N/A	N/A	N/A	N/A	10	250	8:55	9:25	10.0 ML OF SPIKE
GP18083-S1	1	N/A	N/A	N/A	N/A	10	250	8:55	9:25	10.0 ML OF SPIKE
GP18083-D1	1	N/A	N/A	N/A	N/A	10	250	8:55	9:25	
MC33244-1	1	N/A	N/A	N/A	N/A	10	250	8:55	9:25	
MC33244-2	1	N/A	N/A	N/A	N/A	10.1	250	8:55	9:25	
MC33244-3	1	N/A	N/A	N/A	N/A	10.1	250	10:30	11:00	
MC33244-4	1	N/A	N/A	N/A	N/A	10	250	10:30	11:00	
MC33244-5	1	N/A	N/A	N/A	N/A	10	250	10:30	11:00	
MC33244-6	1	N/A	N/A	N/A	N/A	10.3	250	10:30	11:00	
MC33244-7	1	N/A	N/A	N/A	N/A	10	250	10:30	11:00	
MC33244-8	1	N/A	N/A	N/A	N/A	10.3	250	10:30	11:00	
MC33244-9	1	N/A	N/A	N/A	N/A	10	250	11:45	12:15	
MC33244-10	1	N/A	N/A	N/A	N/A	10	250	11:45	12:15	
MC33244-11	1	N/A	N/A	N/A	N/A	10.1	250	11:45	12:15	
MC33191-1	1	N/A	N/A	N/A	N/A	10.2	250	11:45	12:15	

9-2-14 BS

Reagent Lot # (Refer to Indivdual SOP for amounts added)

0.01N H2SO4	RGT-42195-SREAC	N/A	
0.25N NaOH	RGT-42132-CREAC	N/A	
Sulfide Spike	GNSTD-34934-S-1	N/A	
Spike Check Solution	GNSTD-34835-SREAC-1	N/A	
N/A		N/A	

Comment:

QC Review _____ Date 9/3/14

9.3 9

Cyanide - Chp 7

Preservative - Cool < 4C
Hold Time - 28 days to prep/analysis NFG 14 days

Sample Date	Sample ID	Laboratory ID	Matrix	Preservative	Days to Analysis	Date Analyzed	DF
08/28/14	MH-C3	MC33244-1	Solid	ok	5	9/2/14	1X
08/28/14	MH-A1	MC33244-2	Solid	ok	5	9/2/14	1X
08/28/14	MH-A2	MC33244-3	Solid	ok	5	9/2/14	1X
08/28/14	MH-A20	MC33244-4	Solid	ok	5	9/2/14	1X
08/28/14	MH-A4	MC33244-5	Solid	ok	5	9/2/14	1X
08/28/14	MH-A3	MC33244-6	Solid	ok	5	9/2/14	1X
08/28/14	MH-C4	MC33244-7	Solid	ok	5	9/2/14	1X
08/28/14	MH-B2	MC33244-8	Solid	ok	5	9/2/14	1X
08/28/14	MH-D1	MC33244-9	Solid	ok	5	9/2/14	1X
08/28/14	MH-D2	MC33244-10	Solid	ok	5	9/2/14	1X
08/28/14	MH-B3	MC33244-11	Solid	ok	5	9/2/14	1X

Calculations for Cyanide - 9014

LCS/LCSD Laboratory limits used for validation unless indicated otherwise.

Sample GP18082 Compound cyanide

	AMOUNT FOUND	AMOUNT SPIKED	%R	FORM 3
LCS	27.7	250	11%	11.10%

Recovery = ((Amount Found)/Amount Spiked)*100
RPD = ((LCS-LCD)/((LCS+LCSD)/2))*100

Analytical Duplicate

Sample MH-C3

	AMOUNT FOUND
Sample	0
Lab Dup	0
RPD	#DIV/0!
Rptd	0

RPD = ((LCS-LCD)/((LCS+LCSD)/2))*100

MS/MSD Laboratory limits used for validation unless indicated otherwise.

Sample MH-C3 Compound Cyanide

	AMOUNT FOUND	NATIVE AMOUNT	AMOUNT SPIKED	%R	FORM 3
MS	28.3	0	279	10%	10.2

Recovery = ((Amount Found-Amount Native)/Amount Spiked)*100
RPD = ((MS-MSD)/((MS+MSD)/2))*100

PDS **None** Laboratory limits used for validation unless indicated otherwise.

Calibration Linear 0.995 NFG Jan 2010
ICV/CCV 85-115% CRI = +/-30% TV as per SW-846 6010C 10.1.3.1 and OLM05.4

Initial Calibration Calculation Check

ICAL	Cyanide 9/2/14	
	STD	**area**
1	0.00000	0.000
2	0.02000	0.064
3	0.05000	0.152
4	0.10000	0.288
5	0.20000	0.584
6	0.30000	0.910
7	0.40000	1.256
8		
	Correl	0.99930
	Lab correl	0.99930

Continuing Calibration Calculation Check

ICV	9/2/14	CCV	9/2/14
TV	0.2	TV	0.2
OBS	0.193	OBS	0.201
%R	96.5%	%R	100.5%
Lab value	97	Lab value	101

Sample Calculations

	MH-C3 MS	
Area	0.62	
Cald Conc (ppm)	0.2028	
Rptd Conc	0.203	from raw data
Sample vol	10.000	
Final	250.000	
%S	0.897	
DF	5	
cf	1.00	
Cald mg/Kg	28.25713	
Reptd mg/Kg	28.30000	

ACCUTEST

Protected Worksheet MGN 103-C
(Format edits must be done by Dept Manager)

Test: Cn Reactivity
Product: CREAC
Method: SW846 CHAPT 7 ○ Units: mg/l
SW846 CHAPT 7 ◉ mg/kg

Analyst: BIJANF
GN Batch ID: GN48138
GP Batch ID: GP18082
Date: 9/2/2014
Instrument ID: spectronic 578nm

Original Calibration Information	Calibration Date:	9/2/2014									
	Blank	Std 1	Std 2	Std 3	Std 4	Std 5	Std 6	Std 7	Std 8	Std 9	Std 10
Known:	0.00	0.02	0.05	0.10	0.20	0.30	0.40				
Absorbance:	0.000	0.064	0.152	0.288	0.584	0.910	1.256				
Actual Value:	0.003	0.024	0.052	0.096	0.191	0.296	0.407				

Reagents & Standards Log

Calib STD	GNSTD-34936-CREAC	Reagent	RGT-42186-CREAC
CCV	GNSTD-34936-CREAC-5	Reagent	
ICV		Reagent	
Reagent	RGT-52127-CREAC	Reagent	
Reagent	RGT-42135-CREAC	Reagent	

Correlation Coeff. = 0.99930
Slope = 0.32174
Intercept = 0.00329

Dup Sample ID:	MC33244-1	Orig:	<1.7		Dup:	<1.7		RPD:	0%		
MS Sample ID:	MC33244-1	Orig:	<1.7		Spike Amt:	279	MS Res:	28.3	% Rec:	10%	
MB Prep Date:	09/02/14	Res:	<1.5	RL:	1.5	<RL ?:	Y				
SB Prep Date:	09/02/14	Res:	27.7	Spike Amt:	250	% Rec:	11%				
SB Prep Date:		Res:		Spike Amt:		% Rec:					
CCV (1) Res:	0.193	Known:	0.20	% Rec:	97% ✓	CCV (2) Res:	0.200	Known:	0.20	% Rec:	100%
CCV (3) Res:	0.201	Known:	0.20	% Rec:	101% ✓	CCV (4) Res:		Known:	0.20	% Rec:	

CYANIDE STOCK STANDARDIZATION	If within a week, enter the GN#, and Date. →	GN	GN48098	Date	8/27/2014

ML of BLK	ML AgNO3 for BLK	ML of 10 ppm CN STD	ML AgNO3 for 10 ppm CN Std	Calculated Conc. Of 10 ppm STD	Calculated Conc. Of CN Stock
250		250			

Time Analyzed	Sample ID	Bottle #	Initial Wt (g) or Vol (ml)	Final Vol (ml)	Dilution	Sample Abs	Background Abs.	Result From Curve (mg/L)	Final Result	DL	Units
13:20	CCV		50	50	1	0.590	0.000	0.193	0.193 ✓	0.040	mg/L
13:20	CCB		50	50	1	0.000	0.000	0.003	0.003	0.040	mg/L
13:20	GP18082-MB1		10	250	1	0.000	0.000	0.003	0.082	1.500	mg/kg
13:20	GP18082-B1		10	250	5	0.678	0.000	0.221	27.679	7.500	mg/kg
13:20	GP18082-S1		10	250	5	0.620	0.000	0.203	25.347	7.500	mg/kg
13:20	GP18082-D1		10	250	1	0.004	0.000	0.005	0.114	1.500	mg/kg
13:20	MC33244-1		10	250	1	0.004	0.000	0.005	0.114	1.500	mg/kg
13:20	MC33244-2		10.1	250	1	0.006	0.000	0.005	0.129	1.500	mg/kg
13:20	MC33244-3		10.1	250	1	0.008	0.000	0.006	0.145	1.500	mg/kg
13:20	MC33244-4		10	250	1	0.005	0.000	0.005	0.123	1.500	mg/kg
13:20	MC33244-5		10	250	1	0.006	0.000	0.005	0.131	1.500	mg/kg
13:20	MC33244-6		10.3	250	1	0.007	0.000	0.006	0.135	1.500	mg/kg
13:20	CCV		50	50	1	0.610	0.000	0.200	0.200	1.500	mg/kg
13:30	CCB		50	50	1	0.000	0.000	0.003	0.003	1.500	mg/kg
13:30	MC33244-7		10	250	1	0.008	0.000	0.006	0.147	1.500	mg/kg
13:30	MC33244-8		10.3	250	1	0.006	0.000	0.005	0.127	1.500	mg/kg
13:30	MC33244-9		10	250	1	0.004	0.000	0.005	0.114	1.500	mg/kg
13:30	MC33244-10		10	250	1	0.006	0.000	0.005	0.131	1.500	mg/kg
13:30	MC33244-11		10.1	250	1	0.005	0.000	0.005	0.121	1.500	mg/kg
13:30	MC33191-1		10.2	250	1	0.003	0.000	0.004	0.104	1.500	mg/kg
13:30	CCV		50	50	1	0.615	0.000	0.201	0.201	1.500	mg/kg
	CCB		50	50	1	0.000	0.000	0.003	0.003 ✓	1.500	mg/kg

9-2-14 BIJ

Comment:

Analyst: BIJ Date: 9-3-14 QC Reviewer: Date: 9/3/14

9.2 9

ACCUTEST

Distillation

Protected Worksheet MGN127-01
(Format edits must be done by Dept. manager)

Analyst:	BIJANF	Date	9/2/14	Batch ID	GP18082	Matrix	Solids
QC Sample	MC33244-1	Balance ID	ACC-5	pH Meter ID	N/A	Block ID	N/A

Analysis Type

CN EPA 335.4 ○	CN SW846 9010B ○	CN-A SM21 4500CN-G/335.4 ○	CN-A SW846 9010 ○
PAC MADEP ○	CREAC Chap 7 ◉	SREAC Chap7 ○	CNWAD SM20 4500CN-I ○

Sample ID	Bot #	ID	Interfere Chk CL	Interfere Chk S	Init. pH	SMPL Amt G	DIST Vol ML	Start Time	End Time	Comments/Spike
GP18082-MB1		N/A	N/A	N/A	N/A	10	250	8:55	9:25	
GP18082-B1		N/A	N/A	N/A	N/A	10	250	8:55	9:25	2.5 ML OF SPIKE
GP18082-S1	1	N/A	N/A	N/A	N/A	10	250	8:55	9:25	2.5 ML OF SPIKE
GP18082-D1	1	N/A	N/A	N/A	N/A	10	250	8:55	9:25	
MC33244-1	1	N/A	N/A	N/A	N/A	10	250	8:55	9:25	
MC33244-2	1	N/A	N/A	N/A	N/A	10.1	250	8:55	9:25	
MC33244-3	1	N/A	N/A	N/A	N/A	10.1	250	10:30	11:00	
MC33244-4	1	N/A	N/A	N/A	N/A	10	250	10:30	11:00	
MC33244-5	1	N/A	N/A	N/A	N/A	10	250	10:30	11:00	
MC33244-6	1	N/A	N/A	N/A	N/A	10.3	250	10:30	11:00	
MC33244-7	1	N/A	N/A	N/A	N/A	10	250	10:30	11:00	
MC33244-8	1	N/A	N/A	N/A	N/A	10.3	250	10:30	11:00	
MC33244-9	1	N/A	N/A	N/A	N/A	10	250	11:45	12:15	
MC33244-10	1	N/A	N/A	N/A	N/A	10	250	11:45	12:15	
MC33244-11	1	N/A	N/A	N/A	N/A	10.1	250	11:45	12:15	
MC33191-1	1	N/A	N/A	N/A	N/A	10.2	250	11:45	12:15	

9-2-14 BT

9.2

Reagent Lot # (Refer to Indivdual SOP for amounts added)

0.01N H2SO4	RGT-42195-SREAC	N/A	
0.25N NaOH	RGT-42132-CREAC	N/A	
CREAC Spike	GNSTD-33221-CN-1	N/A	
N/A		N/A	
N/A		N/A	

Comment:

QC Review _____ Date 9/3/14

Mercury - 7470

Preservative - pH <2; Cool < 4C
Hold Time - 28 days to prep/analysis

Sample Date	Sample ID	Laboratory ID	Matrix	TCLP Start	Days to Extract	TCLP End	Days to Extract	Date Prepped	Days to Analysis	Date Analyzed	DF
08/28/14	MH-C3	MC33244-1	Solid	9/2/14	5	9/3/14	0	9/3/14	0	9/3/14	1X
08/28/14	MH-A1	MC33244-2	Solid	9/2/14	5	9/3/14	0	9/3/14	0	9/3/14	1X
08/28/14	MH-A2	MC33244-3	Solid	9/2/14	5	9/3/14	0	9/3/14	0	9/3/14	1X
08/28/14	MH-A20	MC33244-4	Solid	9/2/14	5	9/3/14	0	9/3/14	0	9/3/14	1X
08/28/14	MH-A4	MC33244-5	Solid	9/2/14	5	9/3/14	0	9/3/14	0	9/3/14	1X
08/28/14	MH-A3	MC33244-6	Solid	9/2/14	5	9/3/14	0	9/3/14	0	9/3/14	1X
08/28/14	MH-C4	MC33244-7	Solid	9/2/14	5	9/3/14	0	9/3/14	0	9/3/14	1X
08/28/14	MH-B2	MC33244-8	Solid	9/2/14	5	9/3/14	0	9/3/14	0	9/3/14	1X
08/28/14	MH-D1	MC33244-9	Solid	9/2/14	5	9/3/14	0	9/3/14	0	9/3/14	1X
08/28/14	MH-D2	MC33244-10	Solid	9/2/14	5	9/3/14	0	9/3/14	0	9/3/14	1X
08/28/14	MH-B3	MC33244-11	Solid	9/2/14	5	9/3/14	0	9/3/14	0	9/3/14	1X

Calculations for Mercury - 7470

LCS/LCSD Laboratory limits used for validation unless indicated otherwise.

Sample MP23558 Compound mercury

	AMOUNT FOUND	AMOUNT SPIKED	%R	FORM 3
LCS	0.0032	0.003	107%	106.7

Recovery = ((Amount Found)/Amount Spiked)*100
RPD = ((LCS-LCD)/((LCS+LCSD)/2))*100

Analytical Duplicate None

MS/MSD **Non-client** Laboratory limits used for validation unless indicated otherwise.

PDS **None** Laboratory limits used for validation unless indicated otherwise.

Calibration Linear 0.995 NFG Jan 2010
ICV/CCV 85-115% CRI = +/-30% TV as per SW-846 6010C 10.1.3.1 and OLM05.4

Initial Calibration Calculation Check

ICAL	Mercury 9/3/14	
	STD	**area**
A	0.000	27.000
B	0.20000	961.000
C	0.50000	2383.000
D	1.00000	4863.000
E	2.00000	9887.000
F	3.00000	14793.000
G	4.00000	20075.000
H	5.00000	25423.000
I	6.00000	30142.000
	Correl	0.99991
	Lab correl	0.99990

Continuing Calibration Calculation Check

ICV	9/3/14 1606	CRQL	9/3/14 1617	ccv	9/3/14 1655
TV	4	TV	0.2	TV	3
OBS	3.7162	OBS	0.231	OBS	2.4529
%R	92.9%	%R	115.5%	%R	81.8%
Lab value	92.5	Lab value	115	Lab value	83.3

Sample Calculations

LCS	Mercury	
Area	15823	
Cald Conc (p	3.155	
Rptd Conc	3.155	from raw data
Sample vol	50.000	
Final	50.000	
%S	1.000	
DF	1	
cf	1000.00	
Cald mg/L	0.00316	
Reptd mg/L	0.00320	

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

QC Batch ID: MP23558
Matrix Type: LEACHATE

Methods: SW846 7470A
Units: mg/l

Prep Date: 09/03/14 09/03/14

Metal	BSP Result	Spikelot HGRWS1	% Rec	QC Limits	BSD Result	Spikelot HGRWS1	% Rec	BSD RPD	QC Limit
Mercury	0.0032	0.0030	106.7	80-120	0.0032	0.0030	106.7	0.0	

Associated samples MP23558: MC33244-1, MC33244-2, MC33244-3, MC33244-4, MC33244-5, MC33244-6, MC33244-7, MC33244-8, MC33244-9, MC33244-10, MC33244-11

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

Prep QC: MP23556

ACCUTEST

Date:	09/03/14
Time	10:33

Name:	KERRYR
MP Batch ID:	MP23556
QC Sample ID:	MC33270-1A
Reagent Lot #	
1:1 HNO3	
1:1 HCl	RGT-41860-METALS
Conc HNO3	VENDOR-14860
Conc HCl	
H2O2	
LCS Lot #	
Digestion Tube Lot #	1404094

Aqueous EPA 200.7/ 200.8	○
Aqueous SW846 3010A	◉
Soil SW846 3050B	○

TCLP

ML Used	Spike Lot#
0.5	METSTK-1158-METALS

Spike ID: MPICP

Dig Block ID:	4	Therm ID	GN017	Temp. C	95	Factor	-1	Corrected Temp. C	94
Dig Block ID:		Therm ID		Temp. C		Factor		Corrected Temp. C	
Balance ID:	N/A	Repipetor ID	1	Filter Paper Lot #					

Note: (A)Serial dilution shown for QC purposes only (not a seperate digestion). (B) For DW samples <1NTU, measure pH prior to analysis.

Bot#	Sample #	Initial ML	Final ML			1:1 HNO3 ML	Conc. HNO3 ML	1:1 HCl ML	H2O2 ML	Comment
	MP23556-LB1	50	50				3	5		LB @ 09/03/14
	MP23556-MB1	50	50				3	5		
	MP23556-B1	50	50				3	5		
	MP23556-S1	50	50				3	5		
	MP23556-SD1	50	50				3	5		
	MP23556-S2	50	50				3	5		
	MP23556-LS1	50	50				3	5		JB75106-1A
	JB75106-1A	50	50				3	5		
	MC32861-4R	50	50				3	5		
	MC33121-5R	50	50				3	5		
	MC33244-1	50	50				3	5		
	MC33244-10	50	50				3	5		
	MC33244-11	50	50				3	5		
	MC33244-2	50	50				3	5		
	MC33244-3	50	50				3	5		
	MC33244-4	50	50				3	5		
	MC33244-5	50	50				3	5		
	MC33244-6	50	50				3	5		
	MC33244-7	50	50				3	5		
	MC33244-8	50	50				3	5		
	MC33244-9	50	50				3	5		
	MC33246-1A	50	50				3	5		
	MC33270-1A	50	50				3	5		
	MC33270-2A	50	50				3	5		

Protected Worksheet MMP003-03 QC Review VickyY Date: 09/04/14

(Format edits must be done by Dept. Manager)

7.3.1

7

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

QC Batch ID: MP23558
Matrix Type: LEACHATE

Methods: SW846 7470A
Units: mg/l

Prep Date: 09/03/14

Metal	RL	IDL	MDL	MB raw	final
Mercury	0.00020	.0000088	.0001	0.000025	<0.00020

Associated samples MP23558: MC33244-1, MC33244-2, MC33244-3, MC33244-4, MC33244-5, MC33244-6, MC33244-7, MC33244-8, MC33244-9, MC33244-10, MC33244-11

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

6.4.1

6

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

QC Batch ID: MP23558
Matrix Type: LEACHATE

Methods: SW846 7470A
Units: mg/l

Prep Date: 09/03/14

Non-client

Metal	MC33270-1A Original	MS	Spikelot HGRWS1	% Rec	QC Limits
Mercury	0.0	0.0031	0.0030	103.3	75-125

Associated samples MP23558: MC33244-1, MC33244-2, MC33244-3, MC33244-4, MC33244-5, MC33244-6, MC33244-7, MC33244-8, MC33244-9, MC33244-10, MC33244-11

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

6.4.2

6

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

QC Batch ID: MP23558
Matrix Type: LEACHATE

Methods: SW846 7470A
Units: mg/l

Prep Date: 09/03/14

Non-client

Metal	MC33270-1A Original	MSD	Spikelot HGRWS1	% Rec	MSD RPD	QC Limit
Mercury	0.0	0.0030	0.0030	100.0	3.3	

Associated samples MP23558: MC33244-1, MC33244-2, MC33244-3, MC33244-4, MC33244-5, MC33244-6, MC33244-7, MC33244-8, MC33244-9, MC33244-10, MC33244-11

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

6.4.2

6

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

Non-client

QC Batch ID: MP23558
Matrix Type: LEACHATE

Methods: SW846 7470A
Units: mg/l

Prep Date: 09/03/14 09/03/14

Metal	JB75106-1A Original	LS	Spikelot HGRWS1	% Rec	QC Limits	MC33191-1A Original	LS	Spikelot HGRWS1	% Rec	QC Limits
Mercury	0.0	0.0032	0.0030	106.7	75-125	0.000041	0.0033	0.0030	108.6	75-125

Associated samples MP23558: MC33244-1, MC33244-2, MC33244-3, MC33244-4, MC33244-5, MC33244-6, MC33244-7, MC33244-8, MC33244-9, MC33244-10, MC33244-11

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

6.4.2

6

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

File ID: H3090314W1.CSV Date Analyzed: 09/03/14 Methods: SW846 7470A
Analyst: SA Run ID: MA17487
Parameters: Hg

Time	Sample Description	Dilution Factor	PS Recov	Comments
15:43	MA17487-STD1	1		STDA
15:45	MA17487-STD2	1		STDB
15:48	MA17487-STD3	1		STDC
15:50	MA17487-STD4	1		STDD
15:52	MA17487-STD5	1		STDE
15:54	MA17487-STD6	1		STDF
15:57	MA17487-STD7	1		STDG
15:59	MA17487-STD8	1		STDH
16:02	MA17487-STD9	1		STDI
16:06	MA17487-ICV1	1		
16:09	MA17487-ICB1	1		
16:11	MA17487-CCV1	1		
16:15	MA17487-CCB1	1		
16:17	MA17487-CRI1	1		
16:19	MP23558-MB1	1		
16:22	MP23558-B1	1		
16:24	MP23558-B2	1		
16:26	MP23558-S1	1		
16:29	MP23558-S2	1		
16:31	MC33270-1A	1		(sample used for QC only; not part of login MC33244)
16:34	MP23558-LS1	1		
16:36	ZZZZZZ	1		
16:39	MP23558-LS2	1		
16:41	MA17487-CCV2	1		
16:43	MA17487-CCB2	1		
16:46	ZZZZZZ	1		
16:48	MP23558-LB1	1		
16:50	MP23558-LB2	1		
16:52	MA17487-CRI2	1		
16:55	MA17487-CCV3	1		
16:57	MA17487-CCB3	1		
17:01	ZZZZZZ	1		
17:03	ZZZZZZ	1		

LCS

- 83.3%

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

File ID: H3090314W1.CSV Date Analyzed: 09/03/14 Methods: SW846 7470A
Analyst: SA Run ID: MA17487
Parameters: Hg

Time	Sample Description	Dilution Factor	PS Recov	Comments
17:05	MC33244-1	1		
17:08	MC33244-10	1		
17:10	MC33244-11	1		
17:12	MC33244-2	1		
17:14	MC33244-3	1		
17:17	MC33244-4	1		
17:19	MC33244-5	1		
17:21	MC33244-6	1		
17:23	MA17487-CCV4	1		OK
17:26	MA17487-CCB4	1		
17:28	MC33244-7	1		
17:30	MC33244-8	1		
17:33	MC33244-9	1		
---------->	Last reportable sample/prep for job MC33244			
17:35	ZZZZZZ	1		
17:37	MP23557-MB1	1		
17:39	MP23557-B1	1		
17:42	MP23557-S1	1		
17:44	MP23557-S2	1		
17:47	MC33223-1	1		(sample used for QC only; not part of login MC33244)
17:49	ZZZZZZ	1		
17:51	MA17487-CCV5	1		
17:54	MA17487-CCB5	1		
17:56	ZZZZZZ	1		
17:58	ZZZZZZ	1		
18:01	ZZZZZZ	1		
18:03	ZZZZZZ	1		
18:05	MA17487-CRI3	1		
18:07	MA17487-CCV6	1		
18:10	MA17487-CCB6	1		
---------->	Last reportable CCB for job MC33244			

Refer to raw data for calibration curve and standards.

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

File ID: H3090314W1.CSV Date Analyzed: 09/03/14 Methods: SW846 7470A
QC Limits: result < RL Run ID: MA17487 Units: ug/l

Time:			16:09		16:15		16:43		16:57	
Sample ID:			ICB1		CCB1		CCB2		CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Mercury	0.20	.0088	0.010	<0.20	0.026	<0.20	-0.017	<0.20	-0.010	<0.20

(*) Outside of QC limits
(anr) Analyte not requested

6.1.1
6

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

File ID: H3090314W1.CSV Date Analyzed: 09/03/14 Methods: SW846 7470A
QC Limits: result < RL Run ID: MA17487 Units: ug/l

Time:			17:26		17:54		18:10	
Sample ID:			CCB4		CCB5		CCB6	
Metal	RL	IDL	raw	final	raw	final	raw	final
Mercury	0.20	.0088	0.0090	<0.20	-0.010	<0.20	-0.013	<0.20

(*) Outside of QC limits
(anr) Analyte not requested

6.1.1 6

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

File ID: H3090314W1.CSV Date Analyzed: 09/03/14 Methods: SW846 7470A
QC Limits: 90 to 110 % Recovery Run ID: MA17487 Units: ug/l

Time:		16:06			16:11			16:41	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Mercury	4	3.7	92.5	3.0	3.0	100.0	3	2.9	96.7

(*) Outside of QC limits
(anr) Analyte not requested

✓

6.1.2 6

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

File ID: H3090314W1.CSV Date Analyzed: 09/03/14 Methods: SW846 7470A
QC Limits: 90 to 110 % Recovery Run ID: MA17487 Units: ug/l

Time:		16:55			17:23			17:51	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Mercury	3	2.5	83.3	3	3.1	103.3	3	3.1	103.3

(*) Outside of QC limits
(anr) Analyte not requested

NFG 85-115%
3/05

6.1.2
6

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

File ID: H3090314W1.CSV Date Analyzed: 09/03/14 Methods: SW846 7470A
QC Limits: 90 to 110 % Recovery Run ID: MA17487 Units: ug/l

Time:		18:07	
Sample ID:	CCV	CCV6	
Metal	True	Results	% Rec
Mercury	3	3.3	110.0

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

File ID: H3090314W1.CSV Date Analyzed: 09/03/14 Methods: SW846 7470A
QC Limits: 70 to 130 % Recovery Run ID: MA17487 Units: ug/l

Time:			16:17		16:52		18:05	
Sample ID:	CRI	CRIA	CRI1		CRI2		CRI3	
Metal	True	True	Results	% Rec	Results	% Rec	Results	% Rec
Mercury	0.20		0.23	115.0	0.20	100.0	0.24	120.0

(*) Outside of QC limits
(anr) Analyte not requested

6.1.3
6

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

QC Batch ID: MP23556
Matrix Type: LEACHATE

Methods: SW846 6010C
Units: mg/l

Non-detect

Prep Date: 09/03/14

Metal	MC33270-1A Original	MS	Spikelot MPICP	% Rec	QC Limits
Aluminum					
Antimony					
Arsenic	0.026	0.57	0.50	108.8	75-125
Barium	0.40	2.4	2.0	100.0	75-125
Beryllium					
Bismuth					
Boron					
Cadmium	0.00090	0.53	0.50	105.8	75-125
Calcium					
Chromium	0.0049	0.45	0.50	89.0	75-125
Cobalt					
Copper	anr				
Gold					
Iron					
Lead	0.0028	0.99	1.0	98.7	75-125
Lithium					
Magnesium					
Manganese					
Molybdenum					
Nickel	anr				
Palladium					
Platinum					
Potassium					
Selenium	0.0051	0.59	0.50	117.0	75-125
Silicon					
Silver	0.00060	0.18	0.20	89.7	75-125
Sodium					
Sulfur				✓	
Strontium					
Thallium					
Tin					
Titanium					
Tungsten					

6.3.2

6

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

QC Batch ID: MP23556
Matrix Type: LEACHATE

Methods: SW846 6010C
Units: mg/l

Prep Date: 09/03/14

Metal	MC33270-1A Original MS	Spikelot MPICP	% Rec	QC Limits
Vanadium				
Zinc	anr			
Zirconium				

Associated samples MP23556: MC33244-1, MC33244-2, MC33244-3, MC33244-4, MC33244-5, MC33244-6, MC33244-7, MC33244-8, MC33244-9, MC33244-10, MC33244-11

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

6.3.2
6

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

QC Batch ID: MP23556
Matrix Type: LEACHATE

Methods: SW846 6010C
Units: mg/l

Non-client

Prep Date: 09/03/14

Metal	MC33270-1A Original	MSD	Spikelot MPICP	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic	0.026	0.58	0.50	110.8	1.7	20
Barium	0.40	2.4	2.0	100.0	0.0	20
Beryllium						
Bismuth						
Boron						
Cadmium	0.00090	0.53	0.50	105.8	0.0	20
Calcium						
Chromium	0.0049	0.46	0.50	91.0	2.2	20
Cobalt						
Copper	anr					
Gold						
Iron						
Lead	0.0028	0.99	1.0	98.7	0.0	20
Lithium						
Magnesium						
Manganese						
Molybdenum						
Nickel	anr					
Palladium						
Platinum						
Potassium						
Selenium	0.0051	0.60	0.50	119.0	1.7	20
Silicon						
Silver	0.00060	0.19	0.20	94.7	5.4	20
Sodium						
Sulfur						
Strontium						
Thallium						
Tin						
Titanium						
Tungsten						

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

QC Batch ID: MP23556 Methods: SW846 6010C
Matrix Type: LEACHATE Units: mg/l

Prep Date: 09/03/14

Metal	MC33270-1A Original MSD	Spikelot MPICP	% Rec	MSD RPD	QC Limit
Vanadium					
Zinc	anr				
Zirconium					

Associated samples MP23556: MC33244-1, MC33244-2, MC33244-3, MC33244-4, MC33244-5, MC33244-6, MC33244-7, MC33244-8, MC33244-9, MC33244-10, MC33244-11

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

QC Batch ID: MP23556
Matrix Type: LEACHATE

Methods: SW846 6010C
Units: mg/l

Non-client

Prep Date: 09/03/14

Metal	JB75106-1A Original	LS	Spikelot MPICP	% Rec	QC Limits
Aluminum					
Antimony					
Arsenic	0.00070	0.56	0.50	111.9	75-125
Barium	0.55	2.5	2.0	97.5	75-125
Beryllium					
Bismuth					
Boron					
Cadmium	0.0024	0.54	0.50	107.5	75-125
Calcium					
Chromium	0.0061	0.48	0.50	94.8	75-125
Cobalt					
Copper	anr				
Gold					
Iron					
Lead	0.23	1.2	1.0	97.0	75-125
Lithium					
Magnesium					
Manganese					
Molybdenum					
Nickel	anr				
Palladium					
Platinum					
Potassium					
Selenium	0.0059	0.60	0.50	118.8	75-125
Silicon					
Silver	0.0	0.19	0.20	95.0	75-125
Sodium					
Sulfur					
Strontium					
Thallium					
Tin					
Titanium					
Tungsten					

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

QC Batch ID: MP23556
Matrix Type: LEACHATE

Methods: SW846 6010C
Units: mg/l

Prep Date: 09/03/14

Metal	JB75106-1A Original LS	Spikelot MPICP	% Rec	QC Limits
Vanadium				
Zinc	anr			
Zirconium				

Associated samples MP23556: MC33244-1, MC33244-2, MC33244-3, MC33244-4, MC33244-5, MC33244-6, MC33244-7, MC33244-8, MC33244-9, MC33244-10, MC33244-11

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

6.3.2

6

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

QC Batch ID: MP23556
Matrix Type: LEACHATE

Methods: SW846 6010C
Units: mg/l

Prep Date: 09/03/14

Metal	BSP Result	Spikelot MPICP	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic	0.52	0.50	104.0	80-120
Barium	1.8	2.0	90.0	80-120
Beryllium				
Bismuth				
Boron				
Cadmium	0.50	0.50	100.0	80-120
Calcium				
Chromium	0.44	0.50	88.0	80-120
Cobalt				
Copper	anr			
Gold				
Iron				
Lead	0.96	1.0	96.0	80-120
Lithium				
Magnesium				
Manganese				
Molybdenum				
Nickel	anr			
Palladium				
Platinum				
Potassium				
Selenium	0.57	0.50	114.0	80-120
Silicon				
Silver	0.18	0.20	90.0	80-120
Sodium				
Sulfur			✓	
Strontium				
Thallium				
Tin				
Titanium				
Tungsten				

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

QC Batch ID: MP23556
Matrix Type: LEACHATE

Methods: SW846 6010C
Units: mg/l

Prep Date: 09/03/14

Metal	BSP Result	Spikelot MPICP	% Rec	QC Limits
Vanadium				
Zinc	anr			
Zirconium				

Associated samples MP23556: MC33244-1, MC33244-2, MC33244-3, MC33244-4, MC33244-5, MC33244-6, MC33244-7, MC33244-8, MC33244-9, MC33244-10, MC33244-11

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

QC Batch ID: MP23556
Matrix Type: LEACHATE

Methods: SW846 6010C
Units: ug/l

Non-client

Prep Date: 09/03/14

Metal	MC33270-1A Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony				
Arsenic	26.3	23.2	11.8 (a)	0-10
Barium	401	403	0.5	0-10
Beryllium				
Bismuth				
Boron				
Cadmium	0.900	1.30	44.4 (a)	0-10
Calcium				
Chromium	4.90	5.20	6.1	0-10
Cobalt				
Copper	anr			
Gold				
Iron				
Lead	2.80	0.00	100.0(a)	0-10
Lithium				
Magnesium				
Manganese				
Molybdenum				
Nickel	anr			
Palladium				
Platinum				
Potassium				
Selenium	5.10	0.00	100.0(a)	0-10
Silicon				
Silver	0.600	0.00	100.0(a)	0-10
Sodium				
Sulfur				
Strontium				
Thallium				
Tin				
Titanium				
Tungsten				

SERIAL DILUTION RESULTS SUMMARY

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

QC Batch ID: MP23556
Matrix Type: LEACHATE

Methods: SW846 6010C
Units: ug/l

Prep Date: 09/03/14

Metal	MC33270-1A Original SDL 1:5	%DIF	QC Limits
Vanadium			
Zinc	anr		
Zirconium			

Associated samples MP23556: MC33244-1, MC33244-2, MC33244-3, MC33244-4, MC33244-5, MC33244-6, MC33244-7, MC33244-8, MC33244-9, MC33244-10, MC33244-11

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

MA17487

Method: Accutest Operator: Admin Date of Analysis: 03 Sep 2014 15:43:20

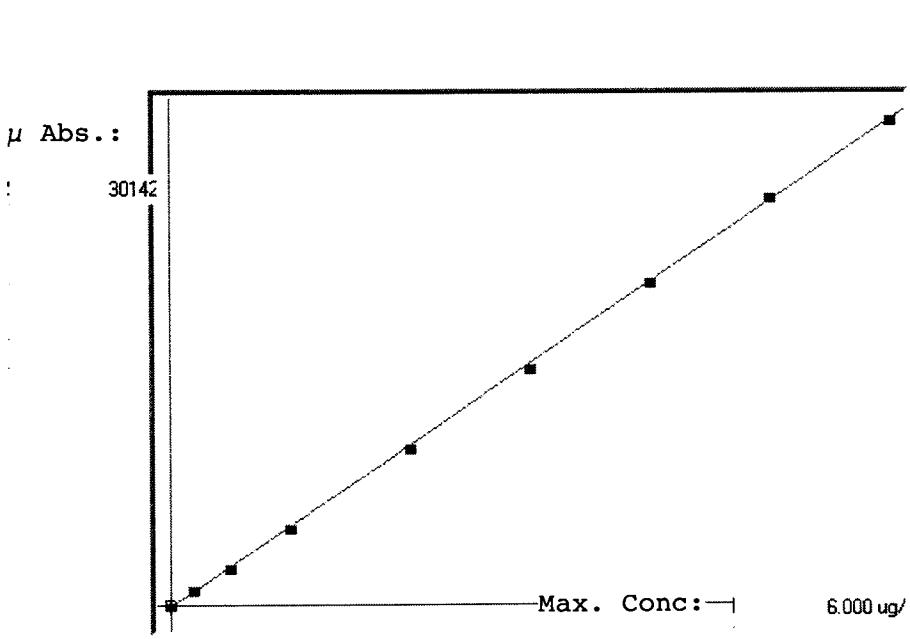
Sample ID	Date	Type	Units	Conc.	μ Abs.	Wt.	Vol.
STDA - 1	03 Sep 2014 15:43:32	Std	ug/l	-	27	1.000	1.000
STDB - 1	03 Sep 2014 15:45:47	Std	ug/l	-	961	1.000	1.000
STDC - 1	03 Sep 2014 15:48:03	Std	ug/l	-	2383	1.000	1.000
STDD - 1	03 Sep 2014 15:50:19	Std	ug/l	-	4863	1.000	1.000
STDE - 1	03 Sep 2014 15:52:38	Std	ug/l	-	9887	1.000	1.000
STDF - 1	03 Sep 2014 15:54:55	Std	ug/l	-	14793	1.000	1.000
STDG - 1	03 Sep 2014 15:57:18	Std	ug/l	-	20075	1.000	1.000
STDH - 1	03 Sep 2014 15:59:46	Std	ug/l	-	25423	1.000	1.000
STDI - 1	03 Sep 2014 16:02:17	Std	ug/l	-	30142	1.000	1.000
ICV - 1	03 Sep 2014 16:06:44	SMPL	ug/l	3.7162	18658	1.000	1.000
ICB - 1	03 Sep 2014 16:09:40	SMPL	ug/l	0.0102	-74	1.000	1.000
CCV - 1	03 Sep 2014 16:11:55	SMPL	ug/l	2.9563	14817	1.000	1.000
CCB - 1	03 Sep 2014 16:15:25	SMPL	ug/l	0.0260	6	1.000	1.000
CRI - 1	03 Sep 2014 16:17:39	SMPL	ug/l	0.2310	1042	1.000	1.000
MP23558-MB1 - 1	03 Sep 2014 16:19:57	SMPL	ug/l	0.0252	2	1.000	1.000
MP23558-B1 - 1	03 Sep 2014 16:22:12	SMPL	ug/l	3.1553	15823	1.000	1.000
MP23558-B2 - 1	03 Sep 2014 16:24:26	SMPL	ug/l	3.2103	16101	1.000	1.000
MP23558-S1 - 1	03 Sep 2014 16:26:54	SMPL	ug/l	3.0605	15344	1.000	1.000
MP23558-S2 - 1	03 Sep 2014 16:29:20	SMPL	ug/l	2.9944	15010	1.000	1.000
MC33270-1A - 1	03 Sep 2014 16:31:52	SMPL	ug/l	-0.0152	-202	1.000	1.000
MP23558-LS1 - 1	03 Sep 2014 16:34:21	SMPL	ug/l	3.1575	15834	1.000	1.000
JB75106-1A - 1	03 Sep 2014 16:36:37	SMPL	ug/l	0.0020	-115	1.000	1.000
MP23558-LS2 - 1	03 Sep 2014 16:39:02	SMPL	ug/l	3.2546	16325	1.000	1.000
CCV - 1	03 Sep 2014 16:41:17	SMPL	ug/l	2.9094	14580	1.000	1.000
CCB - 1	03 Sep 2014 16:43:45	SMPL	ug/l	-0.0173	-213	1.000	1.000
MC33191-1A - 1	03 Sep 2014 16:46:11	SMPL	ug/l	0.0414	84	1.000	1.000
MP23558-LB1 - 1	03 Sep 2014 16:48:26	SMPL	ug/l	0.0246	-1	1.000	1.000
MP23558-LB2 - 1	03 Sep 2014 16:50:40	SMPL	ug/l	0.0323	38	1.000	1.000
CRI - 1	03 Sep 2014 16:52:54	SMPL	ug/l	0.2021	896	1.000	1.000
CCV - 1	03 Sep 2014 16:55:09	SMPL	ug/l	2.4529	12273	1.000	1.000
CCB - 1	03 Sep 2014 16:57:25	SMPL	ug/l	-0.0100	-176	1.000	1.000
MC32861-4R - 1	03 Sep 2014 17:01:24	SMPL	ug/l	0.0381	67	1.000	1.000
MC33121-5R - 1	03 Sep 2014 17:03:39	SMPL	ug/l	0.0604	180	1.000	1.000
MC33244-1 - 1	03 Sep 2014 17:05:55	SMPL	ug/l	0.0335	44	1.000	1.000
MC33244-10 - 1	03 Sep 2014 17:08:09	SMPL	ug/l	0.0333	43	1.000	1.000
MC33244-11 - 1	03 Sep 2014 17:10:24	SMPL	ug/l	0.0529	142	1.000	1.000
MC33244-2 - 1	03 Sep 2014 17:12:38	SMPL	ug/l	0.0396	75	1.000	1.000
MC33244-3 - 1	03 Sep 2014 17:14:53	SMPL	ug/l	0.0349	51	1.000	1.000
MC33244-4 - 1	03 Sep 2014 17:17:07	SMPL	ug/l	0.0305	29	1.000	1.000
MC33244-5 - 1	03 Sep 2014 17:19:22	SMPL	ug/l	0.0379	66	1.000	1.000
MC33244-6 - 1	03 Sep 2014 17:21:36	SMPL	ug/l	0.0315	34	1.000	1.000
CCV - 1	03 Sep 2014 17:23:51	SMPL	ug/l	3.1175	15632	1.000	1.000
CCB - 1	03 Sep 2014 17:26:26	SMPL	ug/l	0.0090	-80	1.000	1.000
MC33244-7 - 1	03 Sep 2014 17:28:43	SMPL	ug/l	0.0303	28	1.000	1.000
MC33244-8 - 1	03 Sep 2014 17:30:58	SMPL	ug/l	0.0434	94	1.000	1.000
MC33244-9 - 1	03 Sep 2014 17:33:14	SMPL	ug/l	0.0325	39	1.000	1.000
MC33270-2A - 1	03 Sep 2014 17:35:29	SMPL	ug/l	0.0814	286	1.000	1.000
MP23557-MB1 - 1	03 Sep 2014 17:37:44	SMPL	ug/l	0.0329	41	1.000	1.000
MP23557-B1 - 1	03 Sep 2014 17:39:59	SMPL	ug/l	3.2115	16107	1.000	1.000
MP23557-S1 - 1	03 Sep 2014 17:42:14	SMPL	ug/l	3.1903	16000	1.000	1.000
MP23557-S2 - 1	03 Sep 2014 17:44:41	SMPL	ug/l	3.2048	16073	1.000	1.000
MC33223-1 - 1	03 Sep 2014 17:47:09	SMPL	ug/l	-0.0231	-242	1.000	1.000
MC33223-2 - 1	03 Sep 2014 17:49:36	SMPL	ug/l	0.0345	49	1.000	1.000
CCV - 1	03 Sep 2014 17:51:51	SMPL	ug/l	3.1476	15784	1.000	1.000
CCB - 1	03 Sep 2014 17:54:06	SMPL	ug/l	-0.0102	-177	1.000	1.000
MC33223-3 - 1	03 Sep 2014 17:56:35	SMPL	ug/l	0.0293	23	1.000	1.000
MC33223-4 - 1	03 Sep 2014 17:58:50	SMPL	ug/l	0.0343	48	1.000	1.000
MC33223-5 - 1	03 Sep 2014 18:01:06	SMPL	ug/l	0.0353	53	1.000	1.000

MA17487

Method: Accutest Operator: Admin Date of Analysis: 03 Sep 2014 15:43:20

Sample ID	Date	Type	Units	Conc.	μ Abs.	Wt.	Vol.
MC33223-6 - 1	03 Sep 2014 18:03:20	SMPL	ug/l	0.0351	52	1.000	1.000
CRI - 1	03 Sep 2014 18:05:35	SMPL	ug/l	0.2363	1069	1.000	1.000
CCV - 1	03 Sep 2014 18:07:50	SMPL	ug/l	3.2675	16390	1.000	1.000
CCB - 1	03 Sep 2014 18:10:06	SMPL	ug/l	-0.0134	-193	1.000	1.000

Accutest



Linear

A= 0.0000e+000

B= 1.9784e-004

C= 2.4797e-002

Rho= 0.9999081

Accept=Accepted

Accepted Date=

09/03/14 16:06

7.1.1

7

Std ID	Conc.	Calc.	Dev.	Mean	SD or %RSD	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
STDA	0.000	0.030	0.030	27	0.000	27				
STDB	0.200	0.215	0.015	961	0.0 %	961				
STDC	0.500	0.496	-0.004	2383	0.0 %	2383				
STDD	1.000	0.987	-0.013	4863	0.0 %	4863				
STDE	2.000	1.981	-0.019	9887	0.0 %	9887				
STDF	3.000	2.952	-0.048	14793	0.0 %	14793				
STDG	4.000	3.997	-0.003	20075	0.0 %	20075				
STDH	5.000	5.055	0.055	25423	0.0 %	25423				
STDI	6.000	5.988	-0.012	30142	0.0 %	30142				

Metals - 6010

Preservative - pH <2; Cool < 4C
Hold Time - 180 days to prep/analysis

Sample Date	Sample ID	Laboratory ID	Matrix	TCLP Start	Days to Extract	TCLP End	Days to Prep	Date Prepped	Days to Analysis	Date Analyzed	DF
08/28/14	MH-C3	MC33244-1	Solid	9/2/14	5	9/3/14	0	9/3/14	1	9/4/14	1X
08/28/14	MH-A1	MC33244-2	Solid	9/2/14	5	9/3/14	0	9/3/14	1	9/4/14	1X
08/28/14	MH-A2	MC33244-3	Solid	9/2/14	5	9/3/14	0	9/3/14	1	9/4/14	1X
08/28/14	MH-A2	MC33244-3	Ba	9/2/14	5	9/3/14	0	9/3/14	1	9/4/14	10X
08/28/14	MH-A20	MC33244-4	Solid	9/2/14	5	9/3/14	0	9/3/14	1	9/4/14	1X
08/28/14	MH-A20	MC33244-4	Ba	9/2/14	5	9/3/14	0	9/3/14	1	9/4/14	20X
08/28/14	MH-A4	MC33244-5	Solid	9/2/14	5	9/3/14	0	9/3/14	1	9/4/14	1X
08/28/14	MH-A4	MC33244-5	Ba	9/2/14	5	9/3/14	0	9/3/14	1	9/4/14	10X
08/28/14	MH-A3	MC33244-6	Solid	9/2/14	5	9/3/14	0	9/3/14	1	9/4/14	1X
08/28/14	MH-A3	MC33244-6	Ba	9/2/14	5	9/3/14	0	9/3/14	1	9/4/14	10X
08/28/14	MH-C4	MC33244-7	Solid	9/2/14	5	9/3/14	0	9/3/14	1	9/4/14	1X
08/28/14	MH-B2	MC33244-8	Solid	9/2/14	5	9/3/14	0	9/3/14	1	9/4/14	1X
08/28/14	MH-D1	MC33244-9	Solid	9/2/14	5	9/3/14	0	9/3/14	1	9/4/14	1X
08/28/14	MH-D1	MC33244-9	Pb	9/2/14	5	9/3/14	0	9/3/14	1	9/4/14	2X
08/28/14	MH-D2	MC33244-10	Solid	9/2/14	5	9/3/14	0	9/3/14	1	9/4/14	1X
08/28/14	MH-B3	MC33244-11	Solid	9/2/14	5	9/3/14	0	9/3/14	1	9/4/14	1X

Calculations for Metals - 6010

LCS/LCSD Laboratory limits used for validation unless indicated otherwise.
NFG 70-130% except Sb/Ag 50-150% NFG Jan 2010

Sample MP23556 Compound Arsenic

	AMOUNT FOUND	AMOUNT SPIKED	%R	FORM 3
LCS	0.5248	0.5	105.0%	104

Recovery = ((Amount Found)/Amount Spiked)*100
RPD = ((LCS-LCD)/((LCS+LCSD)/2))*100

Analytical Duplicate **None** 20%

MS/MSD Laboratory limits used for validation unless indicated otherwise.
TCLP blank spike

Sample JB75106 Compound Se

	AMOUNT FOUND	NATIVE AMOUNT	AMOUNT SPIKED	%R	FORM 3
MS	0.6019	0.0059	0.5	119%	118.8

Recovery = ((Amount Found-Amount Native)/Amount Spiked)*100
RPD = ((MS-MSD)/((MS+MSD)/2))*100

Post Digestion Spike **None** Laboratory limits used for validation unless indicated otherwise.

Serial Dilution 10% NFG Jan 2010 **Non-client**

Calibration Calculation Check Linear 0.995 NFG Jan 2010
ICV/CCV 90-110%
CRI = +/-30% TV as per SW-846 6010C 10.1.3.1 and OLM05.4

ICV	9/4/13 0831	CRI	9/4/14 0853	ccv	10/3 0759
	Cr		As		Zn
TV	3	TV	0.01	TV	2000
OBS	3.041	OBS	0.0112	OBS	1999.4
%R	101.4%	%R	112.0%	%R	100.0%
Lab value	101.3	Lab value	112	Lab value	100

Interference Check Solution +/-20%

	ICSA		ICSAB
	9/4/14 0907		9/4/14 0913
	Ba		Ba
TV	0	TV	0.5
OBS	0	OBS	0.468
%R	#DIV/0!	%R	93.6%
Lab value	0	Lab value	93.6

Sample Calculations

	MH-C3		MH-A20	
	Ba		Ba	
Rptd Conc	3.772	Rptd Conc	111.600	raw data corrected for DF
Sample vol	20.000	Sample vol	20.000	
Final	20.000	Final	20.000	
%S	1.000	%S	1.000	
DF	1	DF	1	
cf	1.00	cf	1.00	
Cald mg/L	3.8	Cald mg/Kg	111.6	
Reptd mg/L	3.8	Reptd mg/Kg	112.0	

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

QC Batch ID: MP23556
Matrix Type: LEACHATE

Methods: SW846 6010C
Units: mg/l

Prep Date: 09/03/14

Metal	RL	IDL	MDL	MB raw	final
Aluminum	0.20	.0075	.013		
Antimony	0.0060	.00094	.0024		
Arsenic	0.010	.00064	.0024	0.00030	<0.010
Barium	0.50	.00017	.002	0.0	<0.50
Beryllium	0.0040	.00004	.00018		
Bismuth	0.050	.001	.003		
Boron	0.10	.0011	.0034		
Cadmium	0.0040	.00016	.00024	0.00010	<0.0040
Calcium	5.0	.0038	.021		
Chromium	0.010	.00043	.00073	0.00020	<0.010
Cobalt	0.050	.00019	.0006		
Copper	0.025	.00044	.0036		
Gold	0.050	.00067	.0014		
Iron	0.10	.0019	.0074		
Lead	0.010	.00083	.0019	0.00020	<0.010
Lithium	0.50	.0015	.045		
Magnesium	5.0	.027	.074		
Manganese	0.015	.00004	.00035		
Molybdenum	0.10	.0016	.00081		
Nickel	0.040	.00023	.00057		
Palladium	0.050	.00098	.0065		
Platinum	0.050	.0023	.0051		
Potassium	5.0	.028	.069		
Selenium	0.025	.0018	.0027	0.0	<0.025
Silicon	0.10	.0059	.021		
Silver	0.0050	.0005	.00096	0.00010	<0.0050
Sodium	5.0	.0065	.022		✓
Sulfur	0.050	.002	.0097		
Strontium	0.010	.000079	.00018		
Thallium	0.0050	.0013	.0015		
Tin	0.10	.00074	.0033		
Titanium	0.050	.00025	.00089		
Tungsten	0.10	.0026	.0052		

6.3.1

6

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

QC Batch ID: MP23556
Matrix Type: LEACHATE

Methods: SW846 6010C
Units: mg/l

Prep Date: 09/03/14

Metal	RL	IDL	MDL	MB raw	final
Vanadium	0.010	.00038	.00072		
Zinc	0.10	.00024	.0042		
Zirconium	0.050	.00019	.0013		

Associated samples MP23556: MC33244-1, MC33244-2, MC33244-3, MC33244-4, MC33244-5, MC33244-6, MC33244-7, MC33244-8, MC33244-9, MC33244-10, MC33244-11

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

QC Batch ID: MP23556
Matrix Type: LEACHATE

Methods: SW846 6010C
Units: mg/l

Prep Date: 09/03/14

Metal	JB75106-1A Original	LS	Spikelot MPICP	% Rec	QC Limits
Aluminum					
Antimony					
Arsenic	0.00070	0.56	0.50	111.9	75-125
Barium	0.55	2.5	2.0	97.5	75-125
Beryllium					
Bismuth					
Boron					
Cadmium	0.0024	0.54	0.50	107.5	75-125
Calcium					
Chromium	0.0061	0.48	0.50	94.8	75-125
Cobalt					
Copper	anr				
Gold					
Iron					
Lead	0.23	1.2	1.0	97.0	75-125
Lithium					
Magnesium					
Manganese					
Molybdenum					
Nickel	anr				
Palladium					
Platinum					
Potassium					
Selenium	0.0059	0.60	0.50	118.8	75-125
Silicon					
Silver	0.0	0.19	0.20	95.0	75-125
Sodium					
Sulfur					
Strontium					
Thallium					
Tin					
Titanium					
Tungsten					

6.3.2

6

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

QC Batch ID: MP23556
Matrix Type: LEACHATE

Methods: SW846 6010C
Units: mg/l

Prep Date: 09/03/14

Metal	JB75106-1A Original LS	Spikelot MPICP	% Rec	QC Limits
Vanadium				
Zinc	anr			
Zirconium				

Associated samples MP23556: MC33244-1, MC33244-2, MC33244-3, MC33244-4, MC33244-5, MC33244-6, MC33244-7, MC33244-8, MC33244-9, MC33244-10, MC33244-11

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

Zoom In / Zoom Out

Sample Name: MP23556-LS1 Acquired: 9/4/2014 10:10:25 Type: Unk
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	Au2427	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1880	5.131	.5597	-.0016	1.451	2.482	.5148	.0005	63.84
Stddev	.0001	.006	.0036	.0006	.006	.002	.0014	.0002	.14
%RSD	.0683	.1130	.6495	40.66	.3830	.0589	.2680	28.22	.2209
#1	.1879	5.135	.5571	-.0020	1.447	2.481	.5158	.0006	63.94
#2	.1881	5.127	.5623	-.0011	1.455	2.483	.5139	.0004	63.74

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5444	.5116	.4800	.5490	4.103	30.66	-.0410	28.46	.6773
Stddev	.0009	.0012	.0015	.0014	.013	.02	.0031	.14	.0022
%RSD	.1572	.2268	.3132	.2608	.3245	.0569	7.630	.4913	.3210
#1	.5438	.5107	.4789	.5480	4.113	30.64	-.0432	28.56	.6757
#2	.5450	.5124	.4811	.5500	4.094	30.67	-.0388	28.36	.6788

Elem	Mo2020	Na5895	Ni2316	Pb2203	Pd3404	Pt2659	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5012	F 1227.	.5446	1.238	-.0032	-.0015	.7323	.5521	.6019
Stddev	.0016	26.	.0003	.001	.0010	.0004	.0032	.0005	.0033
%RSD	.3146	2.108	.0611	.0569	32.53	25.12	.4383	.0919	.5402
#1	.5001	1245.	.5444	1.237	-.0039	-.0018	.7300	.5518	.5996
#2	.5023	1208.	.5449	1.238	-.0025	-.0012	.7345	.5525	.6041

Elem	Si2124	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	W_2079	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.250	1.022	.6370	.5596	.4710	.5435	-.0006	1.100	.0629
Stddev	.016	.001	.0004	.0019	.0001	.0023	.0002	.002	.0057
%RSD	.2969	.1316	.0631	.3371	.0142	.4168	27.69	.2049	9.132
#1	5.239	1.023	.6373	.5582	.4710	.5419	-.0005	1.101	.0670
#2	5.261	1.021	.6367	.5609	.4711	.5452	-.0007	1.098	.0588

Zoom In / Zoom Out

Sample Name: MP23556-LS1 Acquired: 9/4/2014 10:10:25 Type: Unk
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6309.5	3530.5	138660.	19193.
Stddev	1.6	4.7	378.	100.
%RSD	.02549	.13370	.27273	.52240
#1	6310.7	3533.8	138930.	19122.
#2	6308.4	3527.1	138390.	19264.

Zoom In / Zoom Out

Sample Name: JB75106-1A Acquired: 9/4/2014 10:15:58 Type: Unk
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	Au2427	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000	3.237	.0007	-.0004	.4958	.5469	.0002	.0010	39.07
Stddev	.0001	.089	.0002	.0006	.0001	.0122	.0000	.0003	.95
%RSD	340.0	2.736	32.60	131.3	.0240	2.233	8.888	27.54	2.434
#1	-.0000	3.300	.0005	-.0000	.4959	.5556	.0002	.0012	39.74
#2	.0001	3.174	.0009	-.0008	.4958	.5383	.0002	.0008	38.40

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0024	.0015	.0061	.0102	2.612	3.073	-.0395	4.933	.1625
Stddev	.0001	.0003	.0003	.0004	.072	.017	.0053	.181	.0012
%RSD	4.690	18.98	4.767	3.724	2.757	.5440	13.44	3.664	.7526
#1	.0023	.0017	.0063	.0099	2.663	3.085	-.0433	5.061	.1634
#2	.0025	.0013	.0059	.0105	2.561	3.061	-.0358	4.805	.1616

Elem	Mo2020	Na5895	Ni2316	Pb2203	Pd3404	Pt2659	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0107	F 1190.	.0051	.2253	-.0009	-.0060	.8194	.0005	.0059
Stddev	.0008	73.	.0000	.0015	.0009	.0015	.0042	.0003	.0007
%RSD	7.257	6.098	.6475	.6872	98.68	25.11	.5165	67.47	12.04
#1	.0113	1241.	.0050	.2242	-.0016	-.0050	.8164	.0007	.0054
#2	.0102	1138.	.0051	.2264	-.0003	-.0071	.8224	.0003	.0064

Elem	Si2124	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	W_2079	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.385	.0025	.0946	.0822	.0007	.0063	.0005	.6384	.0040
Stddev	.017	.0003	.0019	.0007	.0004	.0003	.0008	.0014	.0000
%RSD	.3097	12.71	2.041	.7999	59.39	4.551	150.8	.2131	.7259
#1	5.373	.0028	.0959	.0826	.0011	.0065	.0011	.6394	.0039
#2	5.397	.0023	.0932	.0817	.0004	.0061	-.0000	.6374	.0040

Zoom In / Zoom Out

Sample Name: JB75106-1A Acquired: 9/4/2014 10:15:58 Type: Unk
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6421.8	3565.3	139360.	19282.
Stddev	4.5	6.2	669.	503.
%RSD	.06986	.17456	.48031	2.6061
#1	6425.0	3569.7	138890.	18927.
#2	6418.7	3560.9	139830.	19638.

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

QC Batch ID: MP23556
Matrix Type: LEACHATE

Methods: SW846 6010C
Units: mg/l

Prep Date: 09/03/14

Metal	BSP Result	Spikelot MPICP	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic	0.52	0.50	104.0	80-120
Barium	1.8	2.0	90.0	80-120
Beryllium				
Bismuth				
Boron				
Cadmium	0.50	0.50	100.0	80-120
Calcium				
Chromium	0.44	0.50	88.0	80-120
Cobalt				
Copper	anr			
Gold				
Iron				
Lead	0.96	1.0	96.0	80-120
Lithium				
Magnesium				
Manganese				
Molybdenum				
Nickel	anr			
Palladium				
Platinum				
Potassium				
Selenium	0.57	0.50	114.0	80-120
Silicon				
Silver	0.18	0.20	90.0	80-120
Sodium				
Sulfur			✓	
Strontium				
Thallium				
Tin				
Titanium				
Tungsten				

6.3.3

6

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

QC Batch ID: MP23556
Matrix Type: LEACHATE

Methods: SW846 6010C
Units: mg/l

Prep Date: 09/03/14

Metal	BSP Result	Spikelot MPICP	% Rec	QC Limits
Vanadium				
Zinc	anr			
Zirconium				

Associated samples MP23556: MC33244-1, MC33244-2, MC33244-3, MC33244-4, MC33244-5, MC33244-6, MC33244-7, MC33244-8, MC33244-9, MC33244-10, MC33244-11

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

QC Batch ID: MP23556
Matrix Type: LEACHATE

Methods: SW846 6010C
Units: mg/l

Prep Date: 09/03/14

Metal	MC33270-1A Original	MS	Spikelot MPICP	% Rec	QC Limits
Aluminum					
Antimony					
Arsenic	0.026	0.57	0.50	108.8	75-125
Barium	0.40	2.4	2.0	100.0	75-125
Beryllium					
Bismuth					
Boron					
Cadmium	0.00090	0.53	0.50	105.8	75-125
Calcium					
Chromium	0.0049	0.45	0.50	89.0	75-125
Cobalt					
Copper	anr				
Gold					
Iron					
Lead	0.0028	0.99	1.0	98.7	75-125
Lithium					
Magnesium					
Manganese					
Molybdenum					
Nickel	anr				
Palladium					
Platinum					
Potassium					
Selenium	0.0051	0.59	0.50	117.0	75-125
Silicon					
Silver	0.00060	0.18	0.20	89.7	75-125
Sodium					
Sulfur					
Strontium					
Thallium					
Tin					
Titanium					
Tungsten					

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

QC Batch ID: MP23556
Matrix Type: LEACHATE

Methods: SW846 6010C
Units: mg/l

Prep Date: 09/03/14

Metal	MC33270-1A Original MS	Spikelot MPICP	% Rec	QC Limits
Vanadium				
Zinc	anr			
Zirconium				

Associated samples MP23556: MC33244-1, MC33244-2, MC33244-3, MC33244-4, MC33244-5, MC33244-6, MC33244-7, MC33244-8, MC33244-9, MC33244-10, MC33244-11

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

6.3.2
6

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

QC Batch ID: MP23556
Matrix Type: LEACHATE

Methods: SW846 6010C
Units: mg/l

Prep Date: 09/03/14

Non-client

Metal	MC33270-1A Original	MSD	Spikelot MPICP	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic	0.026	0.58	0.50	110.8	1.7	20
Barium	0.40	2.4	2.0	100.0	0.0	20
Beryllium						
Bismuth						
Boron						
Cadmium	0.00090	0.53	0.50	105.8	0.0	20
Calcium						
Chromium	0.0049	0.46	0.50	91.0	2.2	20
Cobalt						
Copper	anr					
Gold						
Iron						
Lead	0.0028	0.99	1.0	98.7	0.0	20
Lithium						
Magnesium						
Manganese						
Molybdenum						
Nickel	anr					
Palladium						
Platinum						
Potassium						
Selenium	0.0051	0.60	0.50	119.0	1.7	20
Silicon						
Silver	0.00060	0.19	0.20	94.7	5.4	20
Sodium						
Sulfur						
Strontium						
Thallium						
Tin						
Titanium						
Tungsten						

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

QC Batch ID: MP23556 Methods: SW846 6010C
Matrix Type: LEACHATE Units: mg/l

Prep Date: 09/03/14

Metal	MC33270-1A Original MSD	Spikelot MPICP	% Rec	MSD RPD	QC Limit
Vanadium					
Zinc	anr				
Zirconium					

Associated samples MP23556: MC33244-1, MC33244-2, MC33244-3, MC33244-4, MC33244-5, MC33244-6, MC33244-7, MC33244-8, MC33244-9, MC33244-10, MC33244-11

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

6.3.2
6

SERIAL DILUTION RESULTS SUMMARY

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

QC Batch ID: MP23556
Matrix Type: LEACHATE

Methods: SW846 6010C
Units: ug/l

Prep Date: 09/03/14

Metal	MC33270-1A Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony				
Arsenic	26.3	23.2	11.8 (a)	0-10
Barium	401	403	0.5	0-10
Beryllium				
Bismuth				
Boron				
Cadmium	0.900	1.30	44.4 (a)	0-10
Calcium				
Chromium	4.90	5.20	6.1	0-10
Cobalt				
Copper	anr			
Gold				
Iron				
Lead	2.80	0.00	100.0(a)	0-10
Lithium				
Magnesium				
Manganese				
Molybdenum				
Nickel	anr			
Palladium				
Platinum				
Potassium				
Selenium	5.10	0.00	100.0(a)	0-10
Silicon				
Silver	0.600	0.00	100.0(a)	0-10
Sodium				
Sulfur				
Strontium				
Thallium				
Tin				
Titanium				
Tungsten				

6.3.4
6

SERIAL DILUTION RESULTS SUMMARY

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

QC Batch ID: MP23556
Matrix Type: LEACHATE

Methods: SW846 6010C
Units: ug/l

Prep Date: 09/03/14

Metal	MC33270-1A Original SDL 1:5	%DIF	QC Limits
Vanadium			
Zinc	anr		
Zirconium			

Associated samples MP23556: MC33244-1, MC33244-2, MC33244-3, MC33244-4, MC33244-5, MC33244-6, MC33244-7, MC33244-8, MC33244-9, MC33244-10, MC33244-11

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

ACCUTEST

Date: 09/03/14

Name:	EDOUARDA
MP Batch ID:	MP23558
QC Sample ID:	MC33270-1A
Reagent Lot #	
Pot.Permanganate	RGT-42159-HG
Pot. Persulfate	RGT-41927-HG
Hydroxylamine.SO4	RGT42136-HG
Stannous Chloride	RGT-42225-HG
Conc. HCl	N/A
Conc. HNO3	VENDOR-14860
Conc. H2SO4	VENDOR-14810

HG AQ: SW846 7470A	◉
HG AQ: EPA 245.1	○
Soil- SW846 7471B	○

TCLP

Misc.	
Dig. Tube Lot #	1404094
Filter Paper Lot #	N/A
LCS Lot #	N/A
ML Used	Spike Lot#
0.6	METSTD-34945-HG-2
Spike ID	HGRWS1

Note: A) EPA 245.1 Method, calibration standards are prepared without heating. B) Stannous sulfate may be used in place of stannous chloride.

Dig Block ID:	1	Therm ID	GN011	Temp. C	94	Factor	-1	Corrected Temp C	93
Dig Block ID:		Therm ID		Temp. C		Factor		Corrected Temp C	
Dig Block ID:	1	Start Time	10:30	End Time	12:30	Balance ID	N/A		
Dig Block ID:		Start Time		End Time		Pipet ID	1		

Bot. #	Sample #	Initial ML	Final ML	H2SO4 ML	HNO3 ML	HCl ML	Pot. Perm ML	Pot. Pers ML	Hydrox ML	Comment ML of	Lot#	
	RB	20	20	1	0.5	N/A	3	1.6	1.2			
	STD#1	20	20	1	0.5	N/A	3	1.6	1.2	4	METSTD-34945-	HG-3
	STD#2	20	20	1	0.5	N/A	3	1.6	1.2	10	METSTD-34945-	HG-3
	STD#3	20	20	1	0.5	N/A	3	1.6	1.2	2	METSTD-34945-	HG-2
	STD#4	20	20	1	0.5	N/A	3	1.6	1.2	4	METSTD-34945-	HG-2
	STD#5	20	20	1	0.5	N/A	3	1.6	1.2	6	METSTD-34945-	HG-2
	STD#6	20	20	1	0.5	N/A	3	1.6	1.2	8	METSTD-34945-	HG-2
	STD#7	20	20	1	0.5	N/A	3	1.6	1.2	10	METSTD-34945-	HG-2
	STD#8	20	20	1	0.5	N/A	3	1.6	1.2	12	METSTD-34945-	HG-2
	ICV	20	20	1	0.5	N/A	3	1.6	1.2	8	METSTD-34946-	HG-2
	CCV	20	20	1	0.5	N/A	3	1.6	1.2	6	METSTD-34945-	HG-2
	CRI	20	20	1	0.5	N/A	3	1.6	1.2	4	METSTD-34945-	HG-3
	ICB	20	20	1	0.5	N/A	3	1.6	1.2			
	CCB	20	20	1	0.5	N/A	3	1.6	1.2			
	MP23558-LB2	20	20	1	0.5	N/A	3	1.6	1.2	TCLP LB @ 8/29/14		
	MP23558-LB1	20	20	1	0.5	N/A	3	1.6	1.2	TCLP LB @ 9/03/14		
	MP23558-MB1	20	20	1	0.5	N/A	3	1.6	1.2			
	MP23558-B1	20	20	1	0.5	N/A	3	1.6	1.2			
	MP23558-S1	20	20	1	0.5	N/A	3	1.6	1.2			
	MP23558-LS1	20	20	1	0.5	N/A	3	1.6	1.2	0.6	34945	HG-2
	MP23558-B2	20	20	1	0.5	N/A	3	1.6	1.2			
	MP23558-S2	20	20	1	0.5	N/A	3	1.6	1.2			
	MP23558-LS2	20	20	1	0.5	N/A	3	1.6	1.2	0.6	34930	HG-2
	JB75106-1A	20	20	1	0.5	N/A	3	1.6	1.2			
	MC32861-4R	20	20	1	0.5	N/A	3	1.6	1.2			
	MC33121-5R	20	20	1	0.5	N/A	3	1.6	1.2			
	MC33191-1A	20	20	1	0.5	N/A	3	1.6	1.2			
	MC33244-1	20	20	1	0.5	N/A	3	1.6	1.2			
	MC33244-10	20	20	1	0.5	N/A	3	1.6	1.2			
	MC33244-11	20	20	1	0.5	N/A	3	1.6	1.2			
	MC33244-2	20	20	1	0.5	N/A	3	1.6	1.2			

7.3.2

7

Prep QC: MP23558

	MC33244-3	20	20	1	0.5	N/A	3	1.6	1.2	
	MC33244-4	20	20	1	0.5	N/A	3	1.6	1.2	
	MC33244-5	20	20	1	0.5	N/A	3	1.6	1.2	
	MC33244-6	20	20	1	0.5	N/A	3	1.6	1.2	
	MC33244-7	20	20	1	0.5	N/A	3	1.6	1.2	
	MC33244-8	20	20	1	0.5	N/A	3	1.6	1.2	
	MC33244-9	20	20	1	0.5	N/A	3	1.6	1.2	
	MC33270-1A	20	20	1	0.5	N/A	3	1.6	1.2	
	MC33270-2A	20	20	1	0.5	N/A	3	1.6	1.2	

Additional Comment: **MP23558-LS1: JB75106-1A**

MP23558-LS2: MC33191-1A

Protected Worksheet MMA015-04 **QC Review** SarahA **Date:** 09/03/14

(Format edits must be done by Dept. Manager)

7.3.2

7

Zoom In Zoom Out

Sample Name: MC33244-4 Acquired: 9/4/2014 13:09:32 Type: Unk
Method: Accutest2(v139) Mode: CONC Corr. Factor: 20.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: 20X

Elem	Ag3280	Al3961	As1890	Au2427	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0055	.0255	-.0044	.0025	.4399	111.6	-.0008	.0108	719.6
Stddev	.0037	.1188	.0061	.0105	.0040	.5	.0001	.0016	5.0
%RSD	67.60	466.0	138.7	415.4	.9058	.4351	8.937	15.11	.6989
#1	.0029	.1095	-.0087	.0099	.4427	111.3	-.0008	.0119	716.0
#2	.0081	-.0585	-.0001	-.0049	.4371	111.9	-.0007	.0096	723.1

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0089	.0044	.0065	.1554	-.0111	7.319	-.0454	15.17	2.140
Stddev	.0004	.0009	.0032	.0001	.0116	.370	.0095	.12	.017
%RSD	4.728	19.69	48.66	.0439	104.2	5.060	20.98	.7736	.8011
#1	.0086	.0038	.0043	.1554	-.0029	7.057	-.0521	15.25	2.128
#2	.0092	.0050	.0088	.1554	-.0194	7.581	-.0386	15.08	2.152

Elem	Mo2020	Na5895	Ni2316	Pb2203	Pd3404	Pt2659	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0295	1397.	.4169	-.0042	-.0108	-.0234	2.534	.0017	-.0443
Stddev	.0001	1.	.0008	.0025	.0007	.0039	.075	.0143	.0087
%RSD	.4437	.0618	.1925	59.75	6.282	16.60	2.981	853.7	19.71
#1	.0294	1397.	.4174	-.0060	-.0113	-.0261	2.587	.0118	-.0382
#2	.0296	1398.	.4163	-.0024	-.0103	-.0206	2.480	-.0085	-.0505

Elem	Si2124	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	W_2079	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.868	.0003	2.221	.0101	.0011	-.0030	.0284	.2876	.0070
Stddev	.025	.0062	.005	.0034	.0098	.0006	.0101	.0017	.0034
%RSD	.3694	2186.	.2157	33.32	931.9	20.63	35.47	.6040	48.65
#1	6.886	-.0041	2.217	.0078	-.0059	-.0025	.0213	.2863	.0046
#2	6.850	.0047	2.224	.0125	.0080	-.0034	.0356	.2888	.0094

Zoom In Zoom Out

Sample Name: MC33244-4 Acquired: 9/4/2014 13:09:32 Type: Unk
Method: Accutest2(v139) Mode: CONC Corr. Factor: 20.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: 20X

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7682.3	3912.6	154060.	19219.
Stddev	10.0	5.2	840.	220.
%RSD	.13000	.13254	.54516	1.1444
#1	7689.4	3916.2	154650.	19374.
#2	7675.2	3908.9	153460.	19063.

Zoom In Zoom Out

Sample Name: MC33244-5 Acquired: 9/4/2014 13:15:17 Type: Unk
Method: Accutest2(v139) Mode: CONC Corr. Factor: 10.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: 10X

Elem	Ag3280	Al3961	As1890	Au2427	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0016	.1335	.0085	-.0127	.7526	19.54	.0015	.0094	225.7
Stddev	.0000	.0262	.0016	.0049	.0030	.01	.0004	.0003	.0
%RSD	1.730	19.61	18.39	38.50	.4022	.0257	23.70	3.014	.0195
#1	.0016	.1150	.0097	-.0092	.7547	19.54	.0012	.0096	225.7
#2	.0016	.1520	.0074	-.0161	.7505	19.54	.0017	.0092	225.8

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0033	1.192	.0097	.0133	49.78	6.665	.0069	12.45	8.702
Stddev	.0005	.001	.0017	.0002	.46	.160	.0051	.05	.011
%RSD	15.64	.0610	17.68	1.630	.9306	2.402	73.92	.4408	.1227
#1	.0037	1.193	.0109	.0132	50.11	6.552	.0033	12.49	8.709
#2	.0030	1.192	.0085	.0135	49.45	6.778	.0105	12.41	8.694

Elem	Mo2020	Na5895	Ni2316	Pb2203	Pd3404	Pt2659	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0236	1310.	6.677	-.0010	-.0063	-.0293	3.834	-.0016	.0024
Stddev	.0028	5.	.014	.0020	.0117	.0093	.013	.0036	.0009
%RSD	11.85	.3733	.2144	196.1	186.1	31.73	.3308	225.1	37.83
#1	.0216	1313.	6.687	.0004	-.0145	-.0227	3.825	-.0041	.0018
#2	.0256	1306.	6.667	-.0024	.0020	-.0359	3.843	.0009	.0030

Elem	Si2124	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	W_2079	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	16.60	-.0011	2.074	.0059	-.0019	-.0036	-.1401	17.69	.0048
Stddev	.06	.0004	.000	.0005	.0105	.0005	.0048	.01	.0004
%RSD	.3508	36.89	.0216	8.437	541.0	14.22	3.427	.0788	7.613
#1	16.64	-.0013	2.074	.0055	-.0093	-.0040	-.1435	17.70	.0045
#2	16.56	-.0008	2.073	.0062	.0055	-.0033	-.1367	17.68	.0050

Zoom In Zoom Out

Sample Name: MC33244-5 Acquired: 9/4/2014 13:15:17 Type: Unk
Method: Accutest2(v139) Mode: CONC Corr. Factor: 10.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment: 10X

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7505.1	3879.7	151990.	19338.
Stddev	2.3	2.5	163.	1.
%RSD	.03108	.06487	.10695	.00477
#1	7506.8	3881.5	151880.	19338.
#2	7503.5	3878.0	152110.	19339.

Inst QC: **MA17490**

Zoom In / Zoom Out

Sample Name: MC33244-1 Acquired: 9/4/2014 10:34:04 Type: Unk
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	Au2427	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0009	.0445	-.0015	-.0036	.6494	3.772	.0000	.0019	330.6
Stddev	.0001	.0013	.0005	.0002	.0035	.001	.0000	.0000	2.7
%RSD	10.80	2.940	30.44	6.180	.5441	.0318	58.57	1.551	.8183
#1	.0009	.0436	-.0012	-.0035	.6519	3.773	.0000	.0019	328.7
#2	.0010	.0454	-.0019	-.0038	.6469	3.771	.0000	.0019	332.5

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0245	.0048	.0047	.6418	.0133	2.976	-.0305	20.48	2.055
Stddev	.0000	.0001	.0001	.0004	.0001	.034	.0012	.15	.003
%RSD	.1663	1.968	2.272	.0668	.4467	1.133	3.940	.7248	.1534
#1	.0245	.0049	.0048	.6415	.0133	2.952	-.0314	20.38	2.057
#2	.0245	.0048	.0047	.6421	.0133	3.000	-.0297	20.59	2.053

Elem	Mo2020	Na5895	Ni2316	Pb2203	Pd3404	Pt2659	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0096	F 1217.	.0983	.0287	-.0018	-.0057	3.644	-.0004	.0086
Stddev	.0001	7.	.0004	.0009	.0007	.0030	.007	.0003	.0003
%RSD	1.095	.6149	.4518	2.964	37.87	51.61	.1962	85.31	4.018
#1	.0097	1223.	.0980	.0281	-.0023	-.0078	3.649	-.0006	.0089
#2	.0095	1212.	.0986	.0293	-.0013	-.0036	3.639	-.0002	.0084

Elem	Si2124	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	W_2079	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.881	.0014	.6667	.0013	-.0004	.0001	-.0269	3.721	.0007
Stddev	.021	.0008	.0008	.0000	.0013	.0000	.0008	.032	.0001
%RSD	.7320	56.82	.1236	3.707	289.4	26.96	2.922	.8478	20.71
#1	2.896	.0019	.6673	.0013	-.0013	.0001	-.0264	3.699	.0007
#2	2.866	.0008	.6661	.0014	.0005	.0002	-.0275	3.744	.0006

Raw Data MA17490 page 45 of 114

Zoom In / Zoom Out

Sample Name: MC33244-1 Acquired: 9/4/2014 10:34:04 Type: Unk
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6110.2	3372.0	135390.	19147.
Stddev	13.4	4.4	212.	65.
%RSD	.21949	.13091	.15688	.33947
#1	6119.6	3368.9	135240.	19193.
#2	6100.7	3375.2	135540.	19101.

Raw Data MA17490 page 46 of 114

Zoom In / Zoom Out

Sample Name: CRIB Acquired: 9/4/2014 10:40:24 Type: QC
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	Au2427	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0048	.1912	.0100	.0501	.0973	.4764	.0039	.0522	4.804
Stddev	.0004	.0019	.0001	.0003	.0005	.0019	.0001	.0002	.005
%RSD	8.508	1.004	1.487	.5157	.4664	.4050	3.003	.2941	.0994
#1	.0051	.1899	.0101	.0503	.0970	.4777	.0040	.0520	4.800
#2	.0045	.1926	.0098	.0499	.0976	.4750	.0038	.0523	4.807
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value									
Range									

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0038	.0479	.0095	.0255	.0922	4.502	.4882	4.528	.0152
Stddev	.0001	.0001	.0003	.0003	.0018	.013	.0021	.002	.0000
%RSD	2.790	.1175	3.574	1.254	1.925	.2837	.4227	.0466	.1646
#1	.0037	.0479	.0097	.0253	.0909	4.511	.4897	4.526	.0152
#2	.0038	.0479	.0092	.0257	.0934	4.492	.4868	4.529	.0152
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass
Value									
Range									

Elem	Mo2020	Na5895	Ni2316	Pb2203	Pd3404	Pt2659	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0995	4.896	.0402	.0097	.0501	.0478	.0490	.0067	.0240
Stddev	.0006	.001	.0004	.0003	.0012	.0016	.0009	.0003	.0005
%RSD	.6052	.0246	.8872	3.067	2.399	3.379	1.857	4.724	1.892
#1	.0991	4.895	.0404	.0099	.0493	.0490	.0496	.0065	.0243
#2	.1000	4.896	.0399	.0095	.0510	.0467	.0483	.0069	.0236
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
Value									
Range									

Raw Data MA17490 page 47 of 114

Zoom In / Zoom Out

Sample Name: CRIB Acquired: 9/4/2014 10:40:24 Type: QC
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2124	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	W_2079	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1047	.1007	.0102	.0473	.0049	.0098	.0501	.1000	.0274
Stddev	.0010	.0006	.0000	.0002	.0004	.0001	.0011	.0003	.0005
%RSD	.9965	.5886	.3139	.3944	8.661	1.426	2.294	.2971	1.895
#1	.1039	.1002	.0103	.0475	.0046	.0097	.0493	.0997	.0270
#2	.1054	.1011	.0102	.0472	.0052	.0099	.0509	.1002	.0277
Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	None
Value									
Range									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8106.0	3996.4	158130.	19446.
Stddev	5.4	3.4	570.	63.
%RSD	.06676	.08406	.36036	.32303
#1	8109.9	3998.8	158530.	19491
#2	8102.2	3994.0	157730.	19402

Raw Data MA17490 page 48 of 114

7.2.7

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

File ID: SB090414M1.ICP Date Analyzed: 09/04/14 Methods: SW846 6010C
Analyst: EAL Run ID: MA17490
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
08:20	MA17490-STD1	1		STD1
08:26	MA17490-STD2	1		STD2
08:31	MA17490-ICV1 ✓	1		
08:37	MA17490-ICB1	1		
08:42	MA17490-CCV1	1		
08:48	MA17490-CCB1	1		
08:53	MA17490-CRIB1	1		
09:07	MA17490-ICSA1	1		
09:13	MA17490-ICSAB1	1		
09:18	MP23556-B1 ✓	1	85	
09:24	MP23556-MB1	1		
09:29	MP23556-S1	1		
09:35	MP23556-S2	1		
09:40	MC33270-1A	1		(sample used for QC only; not part of login MC33244)
09:46	MP23556-SD1	5		
09:52	MP23556-LB1	1		
09:58	MA17490-CCV2	1		
10:03	MA17490-CCB2	1		
10:10	MP23556-LS1	1 ✓	leached 85	
10:15	ZZZZZZ	1		
10:21	ZZZZZZ	1		
10:27	ZZZZZZ	1		
10:34	MC33244-1	1 ✓		
10:40	MA17490-CRIB2	1		
10:45	MA17490-ICSA2	1		
10:51	MA17490-ICSAB2	1		
10:57	MA17490-CCV3	1		
11:05	MA17490-CCB3	1		
11:11	ZZZZZZ	1		DNR: FOR IEC SYSTEM CHECK.
11:16	ZZZZZZ	1		DNR: FOR IEC SYSTEM CHECK.
11:22	ZZZZZZ	1		DNR: FOR IEC SYSTEM CHECK.
11:40	MC33244-2	1		
11:46	MC33244-3	1		BA OVER RANGE.

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

File ID: SB090414M1.ICP Date Analyzed: 09/04/14 Methods: SW846 6010C
Analyst: EAL Run ID: MA17490
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
11:52	MC33244-4	1		BA OVER RANGE.
11:58	MC33244-5	1		BA OVER RANGE.
12:03	MC33244-6	1		BA OVER RANGE.
12:09	MC33244-7	1		
12:15	MC33244-8	1		
12:22	MA17490-CCV4	1		
12:29	MA17490-CCB4	1		
12:34	MC33244-9	1		ISTD IN2306 FAILURE.
12:40	MC33244-10	1		
12:46	MC33244-11	1		
12:52	ZZZZZZ	1		
12:58	ZZZZZZ	1		
13:03	MC33244-3	10		
13:09	MC33244-4	20		
13:15	MC33244-5	10		
13:21	MC33244-6	10		
13:26	MC33244-9	2		
---------->	Last reportable sample/prep for job MC33244			
13:32	MA17490-CCV5	1		
13:38	MA17490-CCB5	1		
13:44	MA17490-CRIB3	1		
13:50	MA17490-ICSA3	1		
13:55	MA17490-ICSAB3	1		
14:01	MA17490-CCV6	1		
14:06	MA17490-CCB6	1		
---------->	Last reportable CCB for job MC33244			
	Refer to raw data for calibration curve and standards.			

INTERNAL STANDARD SUMMARY

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

File ID: SB090414M1.ICP Date Analyzed: 09/04/14 Methods: SW846 6010C
Analyst: EAL Run ID: MA17490
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
08:20	MA17490-STD1	4178 R	154230 R	17721 R	8558 R
08:26	MA17490-STD2	4087	155190	17348	7982
08:31	MA17490-ICV1	4095	155280	18964	8003
08:37	MA17490-ICB1	4168	162790	19103	8557
08:42	MA17490-CCV1	4091	156380	18752	8050
08:48	MA17490-CCB1	4143	160550	19142	8481
08:53	MA17490-CRIB1	4067	157970	18982	8194
09:07	MA17490-ICSA1	3587	138440	18281	6563
09:13	MA17490-ICSAB1	3570	138800	18218	6544
09:18	MP23556-B1	3531	137190	18600	6306
09:24	MP23556-MB1	4036	161090	19405	8249
09:29	MP23556-S1	3442	136760	18760	6208
09:35	MP23556-S2	3415	135590	18574	6188
09:40	MC33270-1A	3446	135650	18599	6277
09:46	MP23556-SD1	3799	148370	18982	7179
09:52	MP23556-LB1	3491	136060	18927	6371
09:58	MA17490-CCV2	4002	157540	19501	7896
10:03	MA17490-CCB2	4063	160060	19378	8343
10:10	MP23556-LS1	3531	138660	19193	6310
10:15	ZZZZZZ	3565	139360	19282	6422
10:21	ZZZZZZ	3494	137370	18904	6302
10:27	ZZZZZZ	3533	138600	19174	6402
10:34	MC33244-1	3372	135390	19147	6110
10:40	MA17490-CRIB2	3996	158130	19446	8106
10:45	MA17490-ICSA2	3562	138190	18431	6562
10:51	MA17490-ICSAB2	3569	138560	18417	6568
10:57	MA17490-CCV3	4031	157110	19253	7937
11:05	MA17490-CCB3	4051	160950	19461	8313
11:11	ZZZZZZ	3986	156530	19162	8212
11:16	ZZZZZZ	4094	150800	19604	7452
11:22	ZZZZZZ	3752	143720	18698	6969
11:40	MC33244-2	3461	135560	18667	6257
11:46	MC33244-3	3309	132120	18458	6119

INTERNAL STANDARD SUMMARY

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

File ID: SB090414M1.ICP Date Analyzed: 09/04/14 Methods: SW846 6010C
Analyst: EAL Run ID: MA17490
Parameters: As,Ba,Cd,Cr,Pb,Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
11:52	MC33244-4	3247	128170	18213	6142
11:58	MC33244-5	3470	137260	19053	6312
12:03	MC33244-6	3334	133530	18804	6117
12:09	MC33244-7	3311	132640	18619	6030
12:15	MC33244-8	3376	135500	19025	6209
12:22	MA17490-CCV4	4017	158530	19672	7953
12:29	MA17490-CCB4	4054	159030	19291	8356
12:34	MC33244-9	3277	130310	18270	5929 !a
12:40	MC33244-10	3307	131520	18269	6011
12:46	MC33244-11	3335	133080	18588	6082
12:52	ZZZZZZ	3325	133740	18750	6060
12:58	ZZZZZZ	3318	134260	19113	6054
13:03	MC33244-3	3854	151950	19340	7440
13:09	MC33244-4	3913	154060	19219	7682
13:15	MC33244-5	3880	151990	19338	7505
13:21	MC33244-6	3855	151810	19415	7439
13:26	MC33244-9	3485	138110	18841	6421
13:32	MA17490-CCV5	4013	158440	19531	7955
13:38	MA17490-CCB5	4060	160340	19435	8380
13:44	MA17490-CRIB3	4021	157470	19468	8169
13:50	MA17490-ICSA3	3562	138430	18545	6582
13:55	MA17490-ICSAB3	3564	138190	18406	6585
14:01	MA17490-CCV6	4022	157290	19263	7951
14:06	MA17490-CCB6	4084	160450	19378	8410

R = Reference for ISTD limits. ! = Outside limits.

LEGEND:

Istd#	Parameter	Limits
Istd#1	Yttrium (2243)	70-130 %
Istd#2	Yttrium (3600)	70-130 %
Istd#3	Yttrium (3710)	70-130 %
Istd#4	Indium	70-130 %

(a) No element reported by this internal standard.

6.2.1 6

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

File ID: SB090414M1.ICP Date Analyzed: 09/04/14 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA17490 Units: ug/l

Time:			08:37		08:48		10:03		11:05	
Sample ID:			ICB1		CCB1		CCB2		CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	7.5								
Antimony	6.0	.94								
Arsenic	10	.64	-0.40	<10	-0.20	<10	-0.10	<10	-0.60	<10
Barium	500	.17	-0.10	<500	0.0	<500	-0.10	<500	0.0	<500
Beryllium	4.0	.04								
Bismuth	50	1								
Boron	100	1.1								
Cadmium	4.0	.16	0.20	<4.0	0.20	<4.0	0.30	<4.0	0.20	<4.0
Calcium	5000	3.8								
Chromium	10	.43	0.0	<10	0.40	<10	0.20	<10	-0.10	<10
Cobalt	50	.19								
Copper	25	.44	anr							
Gold	50	.67								
Iron	100	1.9								
Lead	10	.83	0.60	<10	0.80	<10	0.80	<10	0.50	<10
Lithium	500	1.5								
Magnesium	5000	27								
Manganese	15	.04								
Molybdenum	100	1.6								
Nickel	40	.23	anr							
Palladium	50	.98								
Platinum	50	2.3								
Potassium	5000	28								
Selenium	25	1.8	-0.70	<25	-0.30	<25	0.90	<25	-0.20	<25
Silicon	100	5.9								
Silver	5.0	.5	0.0	<5.0	0.10	<5.0	0.30	<5.0	0.20	<5.0
Sodium	5000	6.5								
Sulfur	50	2								
Strontium	10	.079		✓		✓		✓		✓
Thallium	5.0	1.3								
Tin	100	.74								
Titanium	50	.25								
Tungsten	100	2.6								

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

File ID: SB090414M1.ICP Date Analyzed: 09/04/14 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA17490 Units: ug/l

Time:			08:37		08:48		10:03		11:05	
Sample ID:			ICB1		CCB1		CCB2		CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Vanadium	10	.38								
Zinc	100	.24	anr							
Zirconium	50	.19								

(*) Outside of QC limits
(anr) Analyte not requested

6.2.2 6

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

File ID: SB090414M1.ICP Date Analyzed: 09/04/14 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA17490 Units: ug/l

Time:			12:29		13:38		14:06	
Sample ID:			CCB4		CCB5		CCB6	
Metal	RL	IDL	raw	final	raw	final	raw	final
Aluminum	200	7.5						
Antimony	6.0	.94						
Arsenic	10	.64	0.10	<10	-0.50	<10	-0.20	<10
Barium	500	.17	0.10	<500	0.10	<500	0.10	<500
Beryllium	4.0	.04						
Bismuth	50	1						
Boron	100	1.1						
Cadmium	4.0	.16	0.20	<4.0	0.40	<4.0	0.30	<4.0
Calcium	5000	3.8.						
Chromium	10	.43	0.10	<10	0.30	<10	0.30	<10
Cobalt	50	.19						
Copper	25	.44	anr					
Gold	50	.67						
Iron	100	1.9						
Lead	10	.83	0.40	<10	0.80	<10	0.80	<10
Lithium	500	1.5						
Magnesium	5000	27						
Manganese	15	.04						
Molybdenum	100	1.6						
Nickel	40	.23	anr					
Palladium	50	.98						
Platinum	50	2.3						
Potassium	5000	28						
Selenium	25	1.8	0.0	<25	0.40	<25	-0.60	<25
Silicon	100	5.9						
Silver	5.0	.5	0.20	<5.0	0.30	<5.0	0.10	<5.0
Sodium	5000	6.5						
Sulfur	50	2						
Strontium	10	.079						
Thallium	5.0	1.3						✓
Tin	100	.74				✓		
Titanium	50	.25		✓				
Tungsten	100	2.6						

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

File ID: SB090414M1.ICP Date Analyzed: 09/04/14 Methods: SW846 6010C
QC Limits: result < RL Run ID: MA17490 Units: ug/l

Time:			12:29		13:38		14:06	
Sample ID:			CCB4		CCB5		CCB6	
Metal	RL	IDL	raw	final	raw	final	raw	final
Vanadium	10	.38						
Zinc	100	.24	anr					
Zirconium	50	.19						

(*) Outside of QC limits
(anr) Analyte not requested

6.2.2

6

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

File ID: SB090414M1.ICP Date Analyzed: 09/04/14 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA17490 Units: ug/l

Time:		08:31			08:42			09:58	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum									
Antimony									
Arsenic	3000	3010	100.3	2000	1960	98.0	2000	1930	96.5
Barium	3000	3040	101.3	2000	1990	99.5	2000	1940	97.0
Beryllium									
Bismuth									
Boron									
Cadmium	3000	3020	100.7	2000	1950	97.5	2000	1920	96.0
Calcium									
Chromium	3000	3040	101.3	2000	1940	97.0	2000	1860	93.0
Cobalt									
Copper	anr								
Gold									
Iron									
Lead	3000	3020	100.7	2000	1960	98.0	2000	1940	97.0
Lithium									
Magnesium									
Manganese									
Molybdenum									
Nickel	anr								
Palladium									
Platinum									
Potassium									
Selenium	3000	3020	100.7	2000	1980	99.0	2000	1970	98.5
Silicon									
Silver	500	519	103.8	250	244	97.6	250	236	94.4
Sodium									
Sulfur									
Strontium									✓
Thallium			✓			✓			
Tin									
Titanium									
Tungsten									

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

File ID: SB090414M1.ICP Date Analyzed: 09/04/14 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA17490 Units: ug/l

Time:		10:57			12:22			13:32	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum									
Antimony									
Arsenic	2000	1920	96.0	2000	1940	97.0	2000	1950	97.5
Barium	2000	1940	97.0	2000	1950	97.5	2000	1960	98.0
Beryllium									
Bismuth									
Boron									
Cadmium	2000	1920	96.0	2000	1940	97.0	2000	1940	97.0
Calcium									
Chromium	2000	1860	93.0	2000	1870	93.5	2000	1870	93.5
Cobalt									
Copper	anr								
Gold									
Iron									
Lead	2000	1940	97.0	2000	1930	96.5	2000	1930	96.5
Lithium									
Magnesium									
Manganese									
Molybdenum									
Nickel	anr								
Palladium									
Platinum									
Potassium									
Selenium	2000	1960	98.0	2000	1980	99.0	2000	1980	99.0
Silicon									
Silver	250	237	94.8	250	237	94.8	250	239	95.6
Sodium									
Sulfur						✓			✓
Strontium			✓						
Thallium									
Tin									
Titanium									
Tungsten									

6.2.3 6

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

File ID: SB090414M1.ICP Date Analyzed: 09/04/14 Methods: SW846 6010C
QC Limits: 90 to 110 % Recovery Run ID: MA17490 Units: ug/l

Time:		14:01	
Sample ID:	CCV	CCV6	
Metal	True	Results	% Rec
Aluminum			
Antimony			
Arsenic	2000	1940	97.0
Barium	2000	1940	97.0
Beryllium			
Bismuth			
Boron			
Cadmium	2000	1930	96.5
Calcium			
Chromium	2000	1870	93.5
Cobalt			
Copper	anr		
Gold			
Iron			
Lead	2000	1930	96.5
Lithium			
Magnesium			
Manganese			
Molybdenum			
Nickel	anr		
Palladium			
Platinum			
Potassium			
Selenium	2000	1970	98.5
Silicon			
Silver	250	239	95.6
Sodium			
Sulfur			
Strontium			
Thallium			
Tin			
Titanium			
Tungsten			

6.2.3 6

Zoom In / Zoom Out

Sample Name: ICV Acquired: 9/4/2014 8:31:41 Type: QC
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	Au2427	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5190	15.40	3.012	3.081	3.106	3.036	2.980	3.062	17.76
Stddev	.0005	.10	.005	.001	.004	.024	.019	.007	.11
%RSD	.0945	.6787	.1722	.0424	.1383	.8010	.6244	.2442	.6152
#1	.5186	15.33	3.008	3.080	3.103	3.019	2.966	3.056	17.69
#2	.5193	15.48	3.016	3.082	3.109	3.053	2.993	3.067	17.84
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value									
Range									

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.016	2.979	3.041	3.022	17.85	15.06	2.971	17.80	3.117
Stddev	.002	.001	.007	.002	.09	.11	.023	.08	.003
%RSD	.0642	.0311	.2419	.0604	.5214	.7116	.7817	.4542	.0832
#1	3.014	2.978	3.036	3.023	17.79	14.98	2.955	17.75	3.115
#2	3.017	2.979	3.046	3.020	17.92	15.13	2.988	17.86	3.119
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass
Value									
Range									

Elem	Mo2020	Na5895	Ni2316	Pb2203	Pd3404	Pt2659	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.976	15.26	3.014	3.020	3.099	3.092	3.051	3.071	3.020
Stddev	.011	.07	.004	.002	.004	.001	.004	.005	.007
%RSD	.3606	.4858	.1292	.0500	.1392	.0240	.1295	.1602	.2228
#1	2.969	15.20	3.012	3.019	3.096	3.092	3.048	3.067	3.015
#2	2.984	15.31	3.017	3.021	3.102	3.093	3.054	3.074	3.025
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In / Zoom Out

Sample Name: ICV Acquired: 9/4/2014 8:31:41 Type: QC
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2124	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	W_2079	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.932	3.065	3.106	3.048	3.031	3.096	2.874	2.966	3.206
Stddev	.006	.005	.012	.000	.000	.004	.007	.001	.001
%RSD	.2137	.1668	.3704	.0077	.0064	.1301	.2570	.0269	.0435
#1	2.927	3.062	3.114	3.048	3.031	3.093	2.869	2.966	3.205
#2	2.936	3.069	3.098	3.049	3.031	3.099	2.879	2.967	3.207
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8002.9	4094.6	155280.	18964.
Stddev	4.3	6.0	342.	5.
%RSD	.05427	.14690	.22014	.02714
#1	8005.9	4098.9	155520.	18960.
#2	7999.8	4090.4	155030.	18967.

Zoom In / Zoom Out

Sample Name: ICB Acquired: 9/4/2014 8:37:11 Type: QC
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	Au2427	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000	-.0010	-.0004	.0022	.0053	-.0001	.0001	-.0004	.0033
Stddev	.0000	.0041	.0006	.0003	.0008	.0002	.0000	.0006	.0008
%RSD	1987.	430.7	163.4	14.02	14.26	298.9	1.277	133.4	25.56
#1	-.0000	.0019	-.0008	.0020	.0058	.0001	.0001	-.0008	.0027
#2	.0000	-.0039	.0001	.0025	.0048	-.0002	.0001	-.0000	.0039
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002	.0002	-.0000	.0005	.0015	.0046	-.0001	-.0106	.0001
Stddev	.0000	.0001	.0002	.0001	.0007	.0312	.0001	.0136	.0000
%RSD	12.43	52.77	1096.	18.76	44.77	683.9	151.9	127.9	27.54
#1	.0002	.0001	.0002	.0005	.0020	.0266	.0000	-.0010	.0001
#2	.0002	.0003	-.0002	.0004	.0010	-.0175	-.0001	-.0203	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Mo2020	Na5895	Ni2316	Pb2203	Pd3404	Pt2659	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .0124	-.0057	.0001	.0006	-.0007	-.0005	.0001	.0010	-.0007
Stddev	.0023	.0014	.0001	.0004	.0001	.0006	.0000	.0006	.0012
%RSD	18.56	24.70	51.90	70.02	19.54	127.8	38.92	60.67	169.8
#1	.0140	-.0047	.0001	.0009	-.0008	-.0000	.0001	.0006	-.0016
#2	.0108	-.0067	.0002	.0003	-.0006	-.0009	.0001	.0014	.0001
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.0100								
Low Limit	-.0100								

Zoom In / Zoom Out

Sample Name: ICB Acquired: 9/4/2014 8:37:11 Type: QC
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2124	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	W_2079	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0011	.0005	.0000	.0006	.0010	-.0003	F .0203	-.0000	.0019
Stddev	.0005	.0001	.0000	.0000	.0009	.0002	.0019	.0001	.0001
%RSD	51.38	10.21	143.3	7.986	85.79	81.82	9.521	354.0	3.577
#1	.0007	.0006	.0000	.0007	.0017	-.0001	.0217	-.0001	.0019
#2	.0014	.0005	-.0000	.0006	.0004	-.0004	.0190	.0000	.0018
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit							.0100		
Low Limit							-.0100		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8557.3	4168.0	162790.	19103.
Stddev	11.8	2.6	2609.	56.
%RSD	.13744	.06309	1.6024	.29066
#1	8565.6	4169.9	160950.	19143.
#2	8549.0	4166.2	164640.	19064.

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

File ID: SB090414M1.ICP Date Analyzed: 09/04/14 Methods: SW846 6010C
QC Limits: 70 to 130 % Recovery Run ID: MA17490 Units: ug/l

Time:		08:53		10:40		13:44	
Sample ID:	CRIB	CRIB1		CRIB2		CRIB3	
Metal	True	Results	% Rec	Results	% Rec	Results	% Rec
Aluminum	200						
Antimony	6.0						
Arsenic	10	11.2	112.0	10.0	100.0	10.5	105.0
Barium	500	497	99.4	476	95.2	481	96.2
Beryllium	4.0						
Bismuth	50						
Boron	100						
Cadmium	4.0	3.9	97.5	3.8	95.0	3.9	97.5
Calcium	5000						
Chromium	10	10.0	100.0	9.5	95.0	9.8	98.0
Cobalt	50						
Copper	25						
Gold	50						
Iron	100						
Lead	10	10.6	106.0	9.7	97.0	10.4	104.0
Lithium	500						
Magnesium	5000						
Manganese	15						
Molybdenum	100						
Nickel	40						
Palladium	50						
Platinum	50						
Potassium	5000						
Selenium	25	26.5	106.0	24.0	96.0	26.0	104.0
Silicon	100						
Silver	5.0	5.1	102.0	4.8	96.0	5.3	106.0
Sodium	5000						
Sulfur	50						
Strontium	10						✓
Thallium	5.0		✓		✓		
Tin	100						
Titanium	50						
Tungsten	100						

6.2.4 6

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

File ID: SB090414M1.ICP Date Analyzed: 09/04/14 Methods: SW846 6010C
QC Limits: 80 to 120 % Recovery Run ID: MA17490 Units: ug/l

Time:			09:07		09:13		10:45		10:51	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1		ICSA2		ICSAB2	
Metal	True	True	Results	% Rec	Results	% Rec	Results	% Rec	Results	% Rec
Aluminum	500000	500000	505000	101.0	506000	101.2	505000	101.0	504000	100.8
Antimony		2000	-0.20		2120	106.0	0.40		2120	106.0
Arsenic		2000	-1.3		2000	100.0	-1.5		1990	99.5
Barium		500	0.0		468	93.6	0.30		471	94.2
Beryllium		500	0.0		484	96.8	0.10		476	95.2
Bismuth		500	3.3		533	106.6	5.0		528	105.6
Boron		1000	-0.50		949	94.9	0.0		956	95.6
Cadmium		1000	-1.0		983	98.3	-0.80		988	98.8
Calcium	500000	500000	477000	95.4	477000	95.4	462000	92.4	455000	91.0
Chromium		500	0.30		428	85.6	0.20		435	87.0
Cobalt		500	-0.70		464	92.8	-0.40		463	92.6
Copper		500	-0.10		538	107.6	-0.50		533	106.6
Gold		500	-13		531	106.2	-12		522	104.4
Iron	200000	200000	176000	88.0	178000	89.0	175000	87.5	175000	87.5
Lead		1000	-2.1		910	91.0	-0.60		902	90.2
Lithium		500	6.2		546	109.2	8.2		541	108.2
Magnesium	500000	500000	500000	100.0	502000	100.4	495000	99.0	494000	98.8
Manganese		500	23.8		504	100.8	23.6		503	100.6
Molybdenum		1000	2.2		913	91.3	1.9		913	91.3
Nickel		1000	-0.40		963	96.3	0.0		945	94.5
Palladium		500	-24	✓	533	106.6	-22	✓	535	107.0
Platinum		500	-14		499	99.8	-12		500	100.0
Potassium			-120		-140		-14		-54	
Selenium		2000	6.3		2050	102.5	3.0		2030	101.5
Silicon		2000	13.7		2130	106.5	15.0		2100	105.0
Silver		1000	0.10		974	97.4	-1.0		980	98.0
Sodium			110		123		618		518	
Sulfur		500	12.0		492	98.4	12.2		498	99.6
Strontium		1000	1.2		1070	107.0	1.2		1040	104.0
Thallium		2000	1.0		1770	88.5	-0.60		1770	88.5
Tin		1000	2.0		967	96.7	1.0		952	95.2
Titanium		500	1.0		457	91.4	0.90		463	92.6
Tungsten		2000	18.4		1800	90.0	14.4		1810	90.5

✓ ✓

6.2.5 6

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

File ID: SB090414M1.ICP Date Analyzed: 09/04/14 Methods: SW846 6010C
QC Limits: 80 to 120 % Recovery Run ID: MA17490 Units: ug/l

Time:			09:07		09:13		10:45		10:51	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1		ICSA2		ICSAB2	
Metal	True	True	Results	% Rec	Results	% Rec	Results	% Rec	Results	% Rec
Vanadium		500	-0.20		488	97.6	-0.50		487	97.4
Zinc		1000	0.80		851	85.1	0.70		849	84.9
Zirconium		500	1.2		344	68.8*	0.80		327	65.4*

(*) Outside of QC limits
(anr) Analyte not requested

NAF

6.2.5
6

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

File ID: SB090414M1.ICP Date Analyzed: 09/04/14 Methods: SW846 6010C
QC Limits: 80 to 120 % Recovery Run ID: MA17490 Units: ug/l

Time:			13:50		13:55	
Sample ID:	ICSA	ICSAB	ICSA3		ICSAB3	
Metal	True	True	Results	% Rec	Results	% Rec
Aluminum	500000	500000	500000	100.0	501000	100.2
Antimony		2000	-0.90		2120	106.0
Arsenic		2000	-0.20		2010	100.5
Barium		500	0.60		473	94.6
Beryllium		500	0.0		476	95.2
Bismuth		500	5.4		526	105.2
Boron		1000	1.2		966	96.6
Cadmium		1000	-0.80		996	99.6
Calcium	500000	500000	450000	90.0	452000	90.4
Chromium		500	0.30		439	87.8
Cobalt		500	-0.40		463	92.6
Copper		500	-0.20		533	106.6
Gold		500	-11		518	103.6
Iron	200000	200000	174000	87.0	175000	87.5
Lead		1000	-0.10		902	90.2
Lithium		500	5.9		539	107.8
Magnesium	500000	500000	490000	98.0	491000	98.2
Manganese		500	23.4		504	100.8
Molybdenum		1000	2.6		920	92.0
Nickel		1000	-0.30	✓	937	93.7
Palladium		500	-22		538	107.6
Platinum		500	-11		507	101.4
Potassium			-52		-60	
Selenium		2000	2.4		2040	102.0
Silicon		2000	15.7		2100	105.0
Silver		1000	-1.9		990	99.0
Sodium			494		522	
Sulfur		500	14.6		507	101.4
Strontium		1000	1.2		1040	104.0
Thallium		2000	-1.7		1790	89.5
Tin		1000	2.7		944	94.4
Titanium		500	0.80		467	93.4
Tungsten		2000	16.4		1830	91.5

✓

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: MC33244
Account: WSPVAR - WSP Environmental & Energy
Project: Emerson Power Transmission, EPT, 620 South Aurora Street, Ithaca, NY

File ID: SB090414M1.ICP Date Analyzed: 09/04/14 Methods: SW846 6010C
QC Limits: 80 to 120 % Recovery Run ID: MA17490 Units: ug/l

Time:			13:50		13:55	
Sample ID:	ICSA	ICSAB	ICSA3		ICSAB3	
Metal	True	True	Results	% Rec	Results	% Rec
Vanadium		500	-0.20		485	97.0
Zinc		1000	0.70		852	85.2
Zirconium		500	1.6		351	70.2*

(*) Outside of QC limits
(anr) Analyte not requested

NAF

6.2.5 6

Sample Name: CRIB Acquired: 9/4/2014 8:53:55 Type: QC
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	Au2427	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0051	.1995	.0112	.0534	.1017	.4966	.0040	.0539	5.064
Stddev	.0002	.0051	.0002	.0006	.0001	.0009	.0001	.0007	.002
%RSD	3.956	2.534	2.184	1.132	.0609	.1755	1.849	1.248	.0349
#1	.0053	.1960	.0114	.0538	.1017	.4972	.0041	.0534	5.065
#2	.0050	.2031	.0110	.0529	.1018	.4960	.0040	.0544	5.062
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value									
Range									

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0039	.0505	.0100	.0264	.1005	4.661	.5010	4.799	.0160
Stddev	.0001	.0001	.0000	.0002	.0016	.003	.0003	.029	.0001
%RSD	1.374	.0995	.3717	.8594	1.561	.0714	.0666	.6005	.5293
#1	.0039	.0506	.0100	.0262	.0994	4.663	.5012	4.778	.0161
#2	.0039	.0505	.0100	.0265	.1016	4.659	.5007	4.819	.0159
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass
Value									
Range									

Elem	Mo2020	Na5895	Ni2316	Pb2203	Pd3404	Pt2659	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1065	4.864	.0425	.0106	.0517	.0513	.0506	.0065	.0265
Stddev	.0002	.007	.0003	.0007	.0001	.0032	.0009	.0003	.0016
%RSD	.2027	.1425	.7805	6.890	.1887	6.177	1.767	5.339	6.186
#1	.1063	4.859	.0427	.0101	.0518	.0490	.0512	.0068	.0277
#2	.1066	4.869	.0422	.0111	.0516	.0535	.0500	.0063	.0254
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
Value									
Range									

Sample Name: CRIB Acquired: 9/4/2014 8:53:55 Type: QC
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2124	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	W_2079	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1081	.1055	.0107	.0497	.0049	.0102	.0600	.1052	.0517
Stddev	.0009	.0000	.0000	.0000	.0009	.0000	.0001	.0000	.0000
%RSD	.8099	.0232	.1825	.0741	17.78	.1958	.1178	.0214	.0559
#1	.1075	.1055	.0107	.0497	.0055	.0102	.0600	.1052	.0517
#2	.1088	.1055	.0107	.0496	.0043	.0102	.0601	.1052	.0516
Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	None
Value									
Range									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8193.9	4067.4	157970.	18982.
Stddev	3.4	1.6	580.	24.
%RSD	.04101	.03930	.36731	.12653
#1	8196.2	4068.6	157560.	18965.
#2	8191.5	4066.3	158380.	18998.

Sample Name: ICSA Acquired: 9/4/2014 9:07:23 Type: QC
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	Au2427	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001	505.3	-.0013	-.0125	-.0005	.0000	.0000	.0033	477.0
Stddev	.0005	2.3	.0015	.0002	.0004	.0000	.0000	.0008	2.4
%RSD	689.8	.4589	116.4	1.862	71.72	219.4	14.74	23.13	.5134
#1	-.0003	506.9	-.0002	-.0127	-.0003	.0000	.0000	.0039	478.7
#2	.0004	503.6	-.0023	-.0124	-.0008	-.0000	.0000	.0028	475.2
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0010	-.0007	.0003	-.0001	176.4	-.1233	.0062	500.0	.0238
Stddev	.0000	.0001	.0000	.0004	.7	.0222	.0003	.9	.0002
%RSD	4.745	11.81	14.82	517.7	.3801	18.03	4.331	.1769	.6675
#1	-.0010	-.0006	.0003	-.0003	176.8	-.1390	.0061	500.6	.0239
#2	-.0009	-.0007	.0002	.0002	175.9	-.1076	.0064	499.4	.0237
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Mo2020	Na5895	Ni2316	Pb2203	Pd3404	Pt2659	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0022	.1102	-.0004	-.0021	-.0238	-.0136	.0120	-.0002	.0063
Stddev	.0001	.0003	.0001	.0011	.0012	.0021	.0005	.0006	.0006
%RSD	5.261	.2915	31.92	51.41	4.847	15.18	4.018	370.3	9.148
#1	.0021	.1104	-.0003	-.0013	-.0247	-.0150	.0123	.0003	.0067
#2	.0023	.1100	-.0005	-.0029	-.0230	-.0121	.0116	-.0006	.0059
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Sample Name: ICSA Acquired: 9/4/2014 9:07:23 Type: QC
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2124	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	W_2079	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0137	.0020	.0012	.0010	.0010	-.0002	.0184	.0008	.0012
Stddev	.0002	.0008	.0000	.0000	.0014	.0001	.0012	.0003	.0001
%RSD	1.750	42.47	3.208	3.716	137.0	35.70	6.688	35.60	8.510
#1	.0139	.0014	.0013	.0009	.0020	-.0003	.0193	.0006	.0013
#2	.0135	.0026	.0012	.0010	.0000	-.0002	.0176	.0009	.0012
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6562.8	3586.9	138440.	18281.
Stddev	17.9	8.9	1111.	37.
%RSD	.27341	.24822	.80220	.20158
#1	6575.5	3593.2	137660.	18255.
#2	6550.1	3580.6	139230.	18307.

Zoom In / Zoom Out

Sample Name: ICSAB Acquired: 9/4/2014 9:13:04 Type: QC
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	Au2427	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9737	506.4	2.002	.5308	.9489	.4680	.4839	.5334	477.0
Stddev	.0006	4.6	.003	.0016	.0021	.0027	.0025	.0019	4.4
%RSD	.0656	.9099	.1544	.3051	.2211	.5664	.5268	.3612	.9259
#1	.9742	509.6	2.000	.5296	.9474	.4698	.4857	.5347	480.1
#2	.9733	503.1	2.004	.5319	.9504	.4661	.4821	.5320	473.9
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit									
Low Limit									

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9827	.4644	.4279	.5378	177.5	-.1386	.5459	502.1	.5038
Stddev	.0006	.0003	.0006	.0009	1.0	.0008	.0051	2.6	.0001
%RSD	.0585	.0540	.1404	.1651	.5358	.6034	.9424	.5231	.0250
#1	.9823	.4646	.4283	.5372	178.2	-.1391	.5495	503.9	.5038
#2	.9831	.4643	.4274	.5385	176.9	-.1380	.5422	500.2	.5039
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Mo2020	Na5895	Ni2316	Pb2203	Pd3404	Pt2659	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9128	.1234	.9627	.9097	.5326	.4993	.4924	2.119	2.052
Stddev	.0026	.0003	.0004	.0007	.0009	.0016	.0024	.001	.001
%RSD	.2824	.2512	.0419	.0813	.1671	.3142	.4800	.0541	.0650
#1	.9110	.1236	.9630	.9102	.5320	.4981	.4907	2.120	2.053
#2	.9146	.1231	.9624	.9091	.5333	.5004	.4941	2.118	2.051
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In / Zoom Out

Sample Name: ICSAB Acquired: 9/4/2014 9:13:04 Type: QC
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Si2124	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	W_2079	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.125	.9673	1.066	.4569	1.770	.4883	1.802	.8510	.3440
Stddev	.003	.0004	.005	.0001	.005	.0001	.004	.0002	.0065
%RSD	.1191	.0381	.4951	.0269	.2782	.0161	.2497	.0179	1.898
#1	2.127	.9670	1.070	.4569	1.773	.4883	1.799	.8509	.3394
#2	2.123	.9675	1.062	.4570	1.766	.4884	1.805	.8511	.3486
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None
High Limit									
Low Limit									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6544.4	3569.6	138800.	18218.
Stddev	5.1	2.4	42.	105.
%RSD	.07838	.06678	.03043	.57455
#1	6540.8	3567.9	138830.	18144.
#2	6548.0	3571.3	138770.	18292.

Zoom In / Zoom Out

Sample Name: MP23556-B1 Acquired: 9/4/2014 9:18:40 Type: Unk
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	Au2427	B_2089	Ba4554	Be3130	Bi2230	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1755	1.884	.5248	-.0005	.9389	1.802	.4860	.0005	24.50
Stddev	.0014	.007	.0009	.0003	.0009	.006	.0017	.0006	.07
%RSD	.7841	.3500	.1689	60.96	.1006	.3596	.3396	106.9	.2918
#1	.1746	1.879	.5254	-.0003	.9382	1.797	.4848	.0001	24.45
#2	.1765	1.888	.5241	-.0007	.9395	1.806	.4871	.0009	24.55

Elem	Cd2288	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5031	.4778	.4403	.5062	1.855	25.88	-.0528	22.49	.4854
Stddev	.0002	.0015	.0022	.0033	.009	.16	.0016	.05	.0023
%RSD	.0380	.3115	.4950	.6604	.5081	.6347	3.014	.2415	.4757
#1	.5030	.4788	.4388	.5038	1.849	25.76	-.0539	22.46	.4838
#2	.5032	.4767	.4418	.5086	1.862	25.99	-.0516	22.53	.4870

Elem	Mo2020	Na5895	Ni2316	Pb2203	Pd3404	Pt2659	S_1820	Sb2068	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4709	F 1356.	.5160	.9551	-.0032	-.0021	.0141	.5146	.5749
Stddev	.0007	18.	.0013	.0043	.0002	.0009	.0001	.0014	.0020
%RSD	.1535	1.304	.2531	.4500	6.217	39.82	.7246	.2626	.3485
#1	.4714	1368.	.5169	.9581	-.0034	-.0015	.0142	.5136	.5734
#2	.4704	1343.	.5151	.9521	-.0031	-.0027	.0141	.5156	.5763

Elem	Si2124	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	W_2079	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0763	.9760	.5168	.4649	.4397	.5038	.0140	.4590	.1100
Stddev	.0003	.0016	.0024	.0016	.0005	.0015	.0026	.0023	.0137
%RSD	.4357	.1609	.4732	.3520	.1033	.2895	18.57	.4946	12.49
#1	.0765	.9771	.5150	.4638	.4400	.5028	.0159	.4606	.1197
#2	.0760	.9749	.5185	.4661	.4394	.5049	.0122	.4574	.1003

Zoom In / Zoom Out

Sample Name: MP23556-B1 Acquired: 9/4/2014 9:18:40 Type: Unk
Method: Accutest2(v139) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6306.3	3530.5	137190.	18600.
Stddev	5.5	2.2	530.	25.
%RSD	.08713	.06178	.38665	.13444
#1	6302.4	3528.9	137560.	18618.
#2	6310.2	3532.0	136810.	18583.