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## Technical Report for

**Arcadis**

**National Grid, Philly Coke, Philadelphia, PA**

**B0036790.00005**

**SGS Job Number: JC85367**

**Sampling Date: 03/28/19**

### Report to:

**Arcadis U.S.**  
**1 Lincoln Center, 110 West Fayette Street Suite 300**  
**Syracuse, NY 13202**  
**John.Brussel@Arcadis.com; Lawrence.Healy@Arcadis.com**  
**ATTN: John Brussel**

**Total number of pages in report: 302**



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.

A handwritten signature in black ink, appearing to read "Brian McGuire".

**Brian McGuire**  
**General Manager**

**Client Service contact: Kelly Ramos 732-329-0200**

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (ANAB L2248)

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Test results relate only to samples analyzed.



May 06, 2019

Mr. John Brussel  
Arcadis U.S.  
1 Lincoln Center, 110 West Fayette Street Suite 300  
Syracuse, NY 13202

Re: SGS North America – Dayton, NJ Jobs # JC85367 - Reissues

Dear Mr. Brussel,

The final reports for SGS jobs number JC85367 have been edited to reflect corrections to the final results. These edits have been incorporated into the revised report which is attached.

The data has been revised to report to the MDL reporting for sample JC85367 to meet client's requirement. The attached revised report incorporates these revisions.

Please contact me if I can be of further assistance in this matter.

Sincerely,

Report Department

SGS North America Inc.



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[EHS.US.CustomerCare@sgs.com](mailto:EHS.US.CustomerCare@sgs.com). Your feedback is appreciated!



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## Sample Summary

**Arcadis**

**Job No: JC85367**

**National Grid, Philly Coke, Philadelphia, PA**  
**Project No: B0036790.00005**

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
JC85367-1	03/28/19	10:00 EG	03/28/19	AQ	Ground Water	MW-107
JC85367-1D	03/28/19	10:00 EG	03/28/19	AQ	Water Dup/MSD	MW-107 MSD
JC85367-1F	03/28/19	10:00 EG	03/28/19	AQ	Groundwater Filtered	MW-107
JC85367-1FD	03/28/19	10:00 EG	03/28/19	AQ	Water Dup/MSD	MW-107 MSD
JC85367-1FS	03/28/19	10:00 EG	03/28/19	AQ	Water Matrix Spike	MW-107 MS
JC85367-2	03/28/19	11:45 EG	03/28/19	AQ	Ground Water	PCMW-05
JC85367-2F	03/28/19	11:45 EG	03/28/19	AQ	Groundwater Filtered	PCMW-05
JC85367-3	03/28/19	00:00 EG	03/28/19	AQ	Ground Water	GW-DUP-0328
JC85367-3F	03/28/19	00:00 EG	03/28/19	AQ	Groundwater Filtered	GW-DUP-0328
JC85367-4	03/28/19	13:35 EG	03/28/19	AQ	Ground Water	PCMW-16D
JC85367-4F	03/28/19	13:35 EG	03/28/19	AQ	Groundwater Filtered	PCMW-16D

## CASE NARRATIVE / CONFORMANCE SUMMARY

**Client:** Arcadis

**Job No** JC85367

**Site:** National Grid, Philly Coke, Philadelphia, PA

**Report Date** 4/8/2019 11:59:06 AM

On 03/28/2019, 8 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 1.4 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of JC85367 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Compounds qualified as out of range in the continuing calibration summary report are acceptable as per method requirements when there is a high bias but the sample result is non-detect.

### Metals Analysis By Method SW846 6010D

**Matrix:** AQ

**Batch ID:** MP13758

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC85367-1FMS, JC85367-1FMSD, JC85367-1FSDL were used as the QC samples for metals.
- RPD(s) for Serial Dilution for Antimony, Cadmium, Nickel, Vanadium are outside control limits for sample MP13758-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
- MP13758-SD1 for Iron: Serial dilution indicates possible matrix interference.

### Metals Analysis By Method SW846 7470A

**Matrix:** AQ

**Batch ID:** MP13777

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC85367-1FMS, JC85367-1FMSD were used as the QC samples for metals.

### General Chemistry By Method SM2540 C-11

**Matrix:** AQ

**Batch ID:** GN93522

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC85367-1DUP were used as the QC samples for Solids, Total Dissolved.

SGS North America Inc. certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS North America Inc. is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by SGS North America Inc indicated via signature on the report cover

Monday, April 08, 2019

Page 1 of 1

# Summary of Hits

**Job Number:** JC85367  
**Account:** Arcadis  
**Project:** National Grid, Philly Coke, Philadelphia, PA  
**Collected:** 03/28/19



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
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JC85367-1 MW-107

Solids, Total Dissolved 560 10 1.8 mg/l SM2540 C-11

JC85367-1F MW-107

Barium	159 B	200	13	ug/l	SW846 6010D
Calcium	106000	5000	99	ug/l	SW846 6010D
Iron	621	100	32	ug/l	SW846 6010D
Magnesium	43200	5000	140	ug/l	SW846 6010D
Manganese	1190	15	1.4	ug/l	SW846 6010D
Potassium	8700 B	10000	200	ug/l	SW846 6010D
Sodium	14300	10000	570	ug/l	SW846 6010D
Vanadium	2.0 B	50	1.8	ug/l	SW846 6010D

JC85367-2 PCMW-05

Solids, Total Dissolved 600 10 1.8 mg/l SM2540 C-11

JC85367-2F PCMW-05

Barium	365	200	13	ug/l	SW846 6010D
Calcium	76700	5000	99	ug/l	SW846 6010D
Iron	99.6 B	100	32	ug/l	SW846 6010D
Lead	2.9 B	3.0	1.8	ug/l	SW846 6010D
Magnesium	9710	5000	140	ug/l	SW846 6010D
Manganese	182	15	1.4	ug/l	SW846 6010D
Nickel	85.5	10	1.7	ug/l	SW846 6010D
Potassium	2880 B	10000	200	ug/l	SW846 6010D
Sodium	3790 B	10000	570	ug/l	SW846 6010D
Zinc	27.2	20	6.9	ug/l	SW846 6010D

JC85367-3 GW-DUP-0328

Solids, Total Dissolved 750 10 1.8 mg/l SM2540 C-11

JC85367-3F GW-DUP-0328

Barium	360	200	13	ug/l	SW846 6010D
Calcium	76200	5000	99	ug/l	SW846 6010D
Iron	99.0 B	100	32	ug/l	SW846 6010D
Lead	1.9 B	3.0	1.8	ug/l	SW846 6010D
Magnesium	9830	5000	140	ug/l	SW846 6010D
Manganese	186	15	1.4	ug/l	SW846 6010D
Nickel	80.9	10	1.7	ug/l	SW846 6010D

## Summary of Hits

**Job Number:** JC85367  
**Account:** Arcadis  
**Project:** National Grid, Philly Coke, Philadelphia, PA  
**Collected:** 03/28/19



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method	
		Potassium	2890 B	10000	200	ug/l	SW846 6010D
		Sodium	3800 B	10000	570	ug/l	SW846 6010D
		Zinc	28.2	20	6.9	ug/l	SW846 6010D
JC85367-4	PCMW-16D						
		Solids, Total Dissolved	440	10	1.8	mg/l	SM2540 C-11
JC85367-4F	PCMW-16D						
		Arsenic	5.8	3.0	2.8	ug/l	SW846 6010D
		Barium	34.6 B	200	13	ug/l	SW846 6010D
		Calcium	46700	5000	99	ug/l	SW846 6010D
		Cobalt	2.8 B	50	2.6	ug/l	SW846 6010D
		Iron	27100	100	32	ug/l	SW846 6010D
		Magnesium	24900	5000	140	ug/l	SW846 6010D
		Manganese	3130	15	1.4	ug/l	SW846 6010D
		Potassium	2730 B	10000	200	ug/l	SW846 6010D
		Sodium	56100	10000	570	ug/l	SW846 6010D
		Vanadium	4.5 B	50	1.8	ug/l	SW846 6010D

**Sample Results**

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**Report of Analysis**

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## Report of Analysis

<b>Client Sample ID:</b> MW-107	<b>Date Sampled:</b> 03/28/19
<b>Lab Sample ID:</b> JC85367-1	<b>Date Received:</b> 03/28/19
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Project:</b> National Grid, Philly Coke, Philadelphia, PA	

### General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Solids, Total Dissolved	560	10	1.8	mg/l	1	03/30/19 11:55 RC	SM2540	C-11

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> MW-107 <b>Lab Sample ID:</b> JC85367-1F <b>Matrix:</b> AQ - Groundwater Filtered <b>Project:</b> National Grid, Philly Coke, Philadelphia, PA	<b>Date Sampled:</b> 03/28/19 <b>Date Received:</b> 03/28/19 <b>Percent Solids:</b> n/a
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**Dissolved Metals Analysis**

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	46 U	200	46	ug/l	1	04/02/19	04/02/19	ND	SW846 6010D <sup>2</sup> SW846 3010A <sup>3</sup>
Antimony	4.7 U	6.0	4.7	ug/l	1	04/02/19	04/02/19	ND	SW846 6010D <sup>2</sup> SW846 3010A <sup>3</sup>
Arsenic	2.8 U	3.0	2.8	ug/l	1	04/02/19	04/02/19	ND	SW846 6010D <sup>2</sup> SW846 3010A <sup>3</sup>
Barium	159 B	200	13	ug/l	1	04/02/19	04/02/19	ND	SW846 6010D <sup>2</sup> SW846 3010A <sup>3</sup>
Beryllium	0.50 U	1.0	0.50	ug/l	1	04/02/19	04/02/19	ND	SW846 6010D <sup>2</sup> SW846 3010A <sup>3</sup>
Cadmium	1.0 U	3.0	1.0	ug/l	1	04/02/19	04/02/19	ND	SW846 6010D <sup>2</sup> SW846 3010A <sup>3</sup>
Calcium	106000	5000	99	ug/l	1	04/02/19	04/02/19	ND	SW846 6010D <sup>2</sup> SW846 3010A <sup>3</sup>
Chromium	2.0 U	10	2.0	ug/l	1	04/02/19	04/02/19	ND	SW846 6010D <sup>2</sup> SW846 3010A <sup>3</sup>
Cobalt	2.6 U	50	2.6	ug/l	1	04/02/19	04/02/19	ND	SW846 6010D <sup>2</sup> SW846 3010A <sup>3</sup>
Copper	5.9 U	10	5.9	ug/l	1	04/02/19	04/02/19	ND	SW846 6010D <sup>2</sup> SW846 3010A <sup>3</sup>
Iron	621	100	32	ug/l	1	04/02/19	04/02/19	ND	SW846 6010D <sup>2</sup> SW846 3010A <sup>3</sup>
Lead	1.8 U	3.0	1.8	ug/l	1	04/02/19	04/02/19	ND	SW846 6010D <sup>2</sup> SW846 3010A <sup>3</sup>
Magnesium	43200	5000	140	ug/l	1	04/02/19	04/02/19	ND	SW846 6010D <sup>2</sup> SW846 3010A <sup>3</sup>
Manganese	1190	15	1.4	ug/l	1	04/02/19	04/02/19	ND	SW846 6010D <sup>2</sup> SW846 3010A <sup>3</sup>
Mercury	0.095 U	0.20	0.095	ug/l	1	04/02/19	04/02/19	EAL	SW846 7470A <sup>1</sup> SW846 7470A <sup>4</sup>
Nickel	1.7 U	10	1.7	ug/l	1	04/02/19	04/02/19	ND	SW846 6010D <sup>2</sup> SW846 3010A <sup>3</sup>
Potassium	8700 B	10000	200	ug/l	1	04/02/19	04/02/19	ND	SW846 6010D <sup>2</sup> SW846 3010A <sup>3</sup>
Selenium	4.9 U	10	4.9	ug/l	1	04/02/19	04/02/19	ND	SW846 6010D <sup>2</sup> SW846 3010A <sup>3</sup>
Silver	1.9 U	10	1.9	ug/l	1	04/02/19	04/02/19	ND	SW846 6010D <sup>2</sup> SW846 3010A <sup>3</sup>
Sodium	14300	10000	570	ug/l	1	04/02/19	04/02/19	ND	SW846 6010D <sup>2</sup> SW846 3010A <sup>3</sup>
Thallium	1.8 U	10	1.8	ug/l	1	04/02/19	04/02/19	ND	SW846 6010D <sup>2</sup> SW846 3010A <sup>3</sup>
Vanadium	2.0 B	50	1.8	ug/l	1	04/02/19	04/02/19	ND	SW846 6010D <sup>2</sup> SW846 3010A <sup>3</sup>
Zinc	6.9 U	20	6.9	ug/l	1	04/02/19	04/02/19	ND	SW846 6010D <sup>2</sup> SW846 3010A <sup>3</sup>

(1) Instrument QC Batch: MA46407

(2) Instrument QC Batch: MA46414

(3) Prep QC Batch: MP13758

(4) Prep QC Batch: MP13777

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

4.2  
4

## Report of Analysis

<b>Client Sample ID:</b> PCMW-05	<b>Date Sampled:</b> 03/28/19
<b>Lab Sample ID:</b> JC85367-2	<b>Date Received:</b> 03/28/19
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Project:</b> National Grid, Philly Coke, Philadelphia, PA	

### General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Solids, Total Dissolved	600	10	1.8	mg/l	1	03/30/19 11:55 RC	SM2540	C-11

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> PCMW-05	<b>Date Sampled:</b> 03/28/19
<b>Lab Sample ID:</b> JC85367-2F	<b>Date Received:</b> 03/28/19
<b>Matrix:</b> AQ - Groundwater Filtered	<b>Percent Solids:</b> n/a
<b>Project:</b> National Grid, Philly Coke, Philadelphia, PA	

### Dissolved Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	46 U	200	46	ug/l	1	04/02/19	04/02/19	ND	SW846 6010D <sup>2</sup> SW846 3010A <sup>3</sup>
Antimony	4.7 U	6.0	4.7	ug/l	1	04/02/19	04/02/19	ND	SW846 6010D <sup>2</sup> SW846 3010A <sup>3</sup>
Arsenic	2.8 U	3.0	2.8	ug/l	1	04/02/19	04/02/19	ND	SW846 6010D <sup>2</sup> SW846 3010A <sup>3</sup>
Barium	365	200	13	ug/l	1	04/02/19	04/02/19	ND	SW846 6010D <sup>2</sup> SW846 3010A <sup>3</sup>
Beryllium	0.50 U	1.0	0.50	ug/l	1	04/02/19	04/02/19	ND	SW846 6010D <sup>2</sup> SW846 3010A <sup>3</sup>
Cadmium	1.0 U	3.0	1.0	ug/l	1	04/02/19	04/02/19	ND	SW846 6010D <sup>2</sup> SW846 3010A <sup>3</sup>
Calcium	76700	5000	99	ug/l	1	04/02/19	04/02/19	ND	SW846 6010D <sup>2</sup> SW846 3010A <sup>3</sup>
Chromium	2.0 U	10	2.0	ug/l	1	04/02/19	04/02/19	ND	SW846 6010D <sup>2</sup> SW846 3010A <sup>3</sup>
Cobalt	2.6 U	50	2.6	ug/l	1	04/02/19	04/02/19	ND	SW846 6010D <sup>2</sup> SW846 3010A <sup>3</sup>
Copper	5.9 U	10	5.9	ug/l	1	04/02/19	04/02/19	ND	SW846 6010D <sup>2</sup> SW846 3010A <sup>3</sup>
Iron	99.6 B	100	32	ug/l	1	04/02/19	04/02/19	ND	SW846 6010D <sup>2</sup> SW846 3010A <sup>3</sup>
Lead	2.9 B	3.0	1.8	ug/l	1	04/02/19	04/02/19	ND	SW846 6010D <sup>2</sup> SW846 3010A <sup>3</sup>
Magnesium	9710	5000	140	ug/l	1	04/02/19	04/02/19	ND	SW846 6010D <sup>2</sup> SW846 3010A <sup>3</sup>
Manganese	182	15	1.4	ug/l	1	04/02/19	04/02/19	ND	SW846 6010D <sup>2</sup> SW846 3010A <sup>3</sup>
Mercury	0.095 U	0.20	0.095	ug/l	1	04/02/19	04/02/19	EAL	SW846 7470A <sup>1</sup> SW846 7470A <sup>4</sup>
Nickel	85.5	10	1.7	ug/l	1	04/02/19	04/02/19	ND	SW846 6010D <sup>2</sup> SW846 3010A <sup>3</sup>
Potassium	2880 B	10000	200	ug/l	1	04/02/19	04/02/19	ND	SW846 6010D <sup>2</sup> SW846 3010A <sup>3</sup>
Selenium	4.9 U	10	4.9	ug/l	1	04/02/19	04/02/19	ND	SW846 6010D <sup>2</sup> SW846 3010A <sup>3</sup>
Silver	1.9 U	10	1.9	ug/l	1	04/02/19	04/02/19	ND	SW846 6010D <sup>2</sup> SW846 3010A <sup>3</sup>
Sodium	3790 B	10000	570	ug/l	1	04/02/19	04/02/19	ND	SW846 6010D <sup>2</sup> SW846 3010A <sup>3</sup>
Thallium	1.8 U	10	1.8	ug/l	1	04/02/19	04/02/19	ND	SW846 6010D <sup>2</sup> SW846 3010A <sup>3</sup>
Vanadium	1.8 U	50	1.8	ug/l	1	04/02/19	04/02/19	ND	SW846 6010D <sup>2</sup> SW846 3010A <sup>3</sup>
Zinc	27.2	20	6.9	ug/l	1	04/02/19	04/02/19	ND	SW846 6010D <sup>2</sup> SW846 3010A <sup>3</sup>

(1) Instrument QC Batch: MA46407

(2) Instrument QC Batch: MA46414

(3) Prep QC Batch: MP13758

(4) Prep QC Batch: MP13777

RL = Reporting Limit  
MDL = Method Detection Limit

U = Indicates a result < MDL  
B = Indicates a result > = MDL but < RL

4.4  
4

## Report of Analysis

<b>Client Sample ID:</b> GW-DUP-0328	<b>Date Sampled:</b> 03/28/19
<b>Lab Sample ID:</b> JC85367-3	<b>Date Received:</b> 03/28/19
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Project:</b> National Grid, Philly Coke, Philadelphia, PA	

### General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Solids, Total Dissolved	750	10	1.8	mg/l	1	03/30/19 11:55 RC	SM2540	C-11

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

## Report of Analysis

<b>Client Sample ID:</b> GW-DUP-0328 <b>Lab Sample ID:</b> JC85367-3F <b>Matrix:</b> AQ - Groundwater Filtered <b>Project:</b> National Grid, Philly Coke, Philadelphia, PA	<b>Date Sampled:</b> 03/28/19 <b>Date Received:</b> 03/28/19 <b>Percent Solids:</b> n/a
--	---

### Dissolved Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	46 U	200	46	ug/l	1	04/02/19	04/03/19	ND	SW846 6010D <sup>2</sup> SW846 3010A <sup>3</sup>
Antimony	4.7 U	6.0	4.7	ug/l	1	04/02/19	04/03/19	ND	SW846 6010D <sup>2</sup> SW846 3010A <sup>3</sup>
Arsenic	2.8 U	3.0	2.8	ug/l	1	04/02/19	04/03/19	ND	SW846 6010D <sup>2</sup> SW846 3010A <sup>3</sup>
Barium	360	200	13	ug/l	1	04/02/19	04/03/19	ND	SW846 6010D <sup>2</sup> SW846 3010A <sup>3</sup>
Beryllium	0.50 U	1.0	0.50	ug/l	1	04/02/19	04/03/19	ND	SW846 6010D <sup>2</sup> SW846 3010A <sup>3</sup>
Cadmium	1.0 U	3.0	1.0	ug/l	1	04/02/19	04/03/19	ND	SW846 6010D <sup>2</sup> SW846 3010A <sup>3</sup>
Calcium	76200	5000	99	ug/l	1	04/02/19	04/03/19	ND	SW846 6010D <sup>2</sup> SW846 3010A <sup>3</sup>
Chromium	2.0 U	10	2.0	ug/l	1	04/02/19	04/03/19	ND	SW846 6010D <sup>2</sup> SW846 3010A <sup>3</sup>
Cobalt	2.6 U	50	2.6	ug/l	1	04/02/19	04/03/19	ND	SW846 6010D <sup>2</sup> SW846 3010A <sup>3</sup>
Copper	5.9 U	10	5.9	ug/l	1	04/02/19	04/03/19	ND	SW846 6010D <sup>2</sup> SW846 3010A <sup>3</sup>
Iron	99.0 B	100	32	ug/l	1	04/02/19	04/03/19	ND	SW846 6010D <sup>2</sup> SW846 3010A <sup>3</sup>
Lead	1.9 B	3.0	1.8	ug/l	1	04/02/19	04/03/19	ND	SW846 6010D <sup>2</sup> SW846 3010A <sup>3</sup>
Magnesium	9830	5000	140	ug/l	1	04/02/19	04/03/19	ND	SW846 6010D <sup>2</sup> SW846 3010A <sup>3</sup>
Manganese	186	15	1.4	ug/l	1	04/02/19	04/03/19	ND	SW846 6010D <sup>2</sup> SW846 3010A <sup>3</sup>
Mercury	0.095 U	0.20	0.095	ug/l	1	04/02/19	04/02/19	EAL	SW846 7470A <sup>1</sup> SW846 7470A <sup>4</sup>
Nickel	80.9	10	1.7	ug/l	1	04/02/19	04/03/19	ND	SW846 6010D <sup>2</sup> SW846 3010A <sup>3</sup>
Potassium	2890 B	10000	200	ug/l	1	04/02/19	04/03/19	ND	SW846 6010D <sup>2</sup> SW846 3010A <sup>3</sup>
Selenium	4.9 U	10	4.9	ug/l	1	04/02/19	04/03/19	ND	SW846 6010D <sup>2</sup> SW846 3010A <sup>3</sup>
Silver	1.9 U	10	1.9	ug/l	1	04/02/19	04/03/19	ND	SW846 6010D <sup>2</sup> SW846 3010A <sup>3</sup>
Sodium	3800 B	10000	570	ug/l	1	04/02/19	04/03/19	ND	SW846 6010D <sup>2</sup> SW846 3010A <sup>3</sup>
Thallium	1.8 U	10	1.8	ug/l	1	04/02/19	04/03/19	ND	SW846 6010D <sup>2</sup> SW846 3010A <sup>3</sup>
Vanadium	1.8 U	50	1.8	ug/l	1	04/02/19	04/03/19	ND	SW846 6010D <sup>2</sup> SW846 3010A <sup>3</sup>
Zinc	28.2	20	6.9	ug/l	1	04/02/19	04/03/19	ND	SW846 6010D <sup>2</sup> SW846 3010A <sup>3</sup>

(1) Instrument QC Batch: MA46407

(2) Instrument QC Batch: MA46414

(3) Prep QC Batch: MP13758

(4) Prep QC Batch: MP13777

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

4.6  
4

## Report of Analysis

<b>Client Sample ID:</b> PCMW-16D	<b>Date Sampled:</b> 03/28/19
<b>Lab Sample ID:</b> JC85367-4	<b>Date Received:</b> 03/28/19
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Project:</b> National Grid, Philly Coke, Philadelphia, PA	

### General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Solids, Total Dissolved	440	10	1.8	mg/l	1	03/30/19 11:55 RC	SM2540	C-11

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

4.7  
4

## Report of Analysis

<b>Client Sample ID:</b> PCMW-16D	<b>Date Sampled:</b> 03/28/19
<b>Lab Sample ID:</b> JC85367-4F	<b>Date Received:</b> 03/28/19
<b>Matrix:</b> AQ - Groundwater Filtered	<b>Percent Solids:</b> n/a
<b>Project:</b> National Grid, Philly Coke, Philadelphia, PA	

### Dissolved Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method	
Aluminum	46 U	200	46	ug/l	1	04/02/19	04/03/19	ND	SW846 6010D <sup>2</sup>	SW846 3010A <sup>4</sup>
Antimony	4.7 U	6.0	4.7	ug/l	1	04/02/19	04/03/19	ND	SW846 6010D <sup>2</sup>	SW846 3010A <sup>4</sup>
Arsenic	5.8	3.0	2.8	ug/l	1	04/02/19	04/03/19	ND	SW846 6010D <sup>2</sup>	SW846 3010A <sup>4</sup>
Barium	34.6 B	200	13	ug/l	1	04/02/19	04/03/19	ND	SW846 6010D <sup>2</sup>	SW846 3010A <sup>4</sup>
Beryllium	0.50 U	1.0	0.50	ug/l	1	04/02/19	04/03/19	ND	SW846 6010D <sup>2</sup>	SW846 3010A <sup>4</sup>
Cadmium	1.0 U	3.0	1.0	ug/l	1	04/02/19	04/03/19	ND	SW846 6010D <sup>2</sup>	SW846 3010A <sup>4</sup>
Calcium	46700	5000	99	ug/l	1	04/02/19	04/03/19	ND	SW846 6010D <sup>2</sup>	SW846 3010A <sup>4</sup>
Chromium	2.0 U	10	2.0	ug/l	1	04/02/19	04/03/19	ND	SW846 6010D <sup>2</sup>	SW846 3010A <sup>4</sup>
Cobalt	2.8 B	50	2.6	ug/l	1	04/02/19	04/03/19	ND	SW846 6010D <sup>2</sup>	SW846 3010A <sup>4</sup>
Copper	5.9 U	10	5.9	ug/l	1	04/02/19	04/03/19	ND	SW846 6010D <sup>2</sup>	SW846 3010A <sup>4</sup>
Iron	27100	100	32	ug/l	1	04/02/19	04/03/19	ND	SW846 6010D <sup>2</sup>	SW846 3010A <sup>4</sup>
Lead	1.8 U	3.0	1.8	ug/l	1	04/02/19	04/03/19	ND	SW846 6010D <sup>2</sup>	SW846 3010A <sup>4</sup>
Magnesium	24900	5000	140	ug/l	1	04/02/19	04/03/19	ND	SW846 6010D <sup>2</sup>	SW846 3010A <sup>4</sup>
Manganese	3130	15	1.4	ug/l	1	04/02/19	04/03/19	ND	SW846 6010D <sup>3</sup>	SW846 3010A <sup>4</sup>
Mercury	0.095 U	0.20	0.095	ug/l	1	04/02/19	04/02/19	EAL	SW846 7470A <sup>1</sup>	SW846 7470A <sup>5</sup>
Nickel	1.7 U	10	1.7	ug/l	1	04/02/19	04/03/19	ND	SW846 6010D <sup>2</sup>	SW846 3010A <sup>4</sup>
Potassium	2730 B	10000	200	ug/l	1	04/02/19	04/03/19	ND	SW846 6010D <sup>2</sup>	SW846 3010A <sup>4</sup>
Selenium	4.9 U	10	4.9	ug/l	1	04/02/19	04/03/19	ND	SW846 6010D <sup>2</sup>	SW846 3010A <sup>4</sup>
Silver	1.9 U	10	1.9	ug/l	1	04/02/19	04/03/19	ND	SW846 6010D <sup>2</sup>	SW846 3010A <sup>4</sup>
Sodium	56100	10000	570	ug/l	1	04/02/19	04/03/19	ND	SW846 6010D <sup>2</sup>	SW846 3010A <sup>4</sup>
Thallium	1.8 U	10	1.8	ug/l	1	04/02/19	04/03/19	ND	SW846 6010D <sup>2</sup>	SW846 3010A <sup>4</sup>
Vanadium	4.5 B	50	1.8	ug/l	1	04/02/19	04/03/19	ND	SW846 6010D <sup>2</sup>	SW846 3010A <sup>4</sup>
Zinc	6.9 U	20	6.9	ug/l	1	04/02/19	04/03/19	ND	SW846 6010D <sup>2</sup>	SW846 3010A <sup>4</sup>

- (1) Instrument QC Batch: MA46407
- (2) Instrument QC Batch: MA46414
- (3) Instrument QC Batch: MA46419
- (4) Prep QC Batch: MP13758
- (5) Prep QC Batch: MP13777

RL = Reporting Limit  
 MDL = Method Detection Limit

U = Indicates a result < MDL  
 B = Indicates a result > = MDL but < RL

4.8  
4



**Misc. Forms**

**Custody Documents and Other Forms**

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**Includes the following where applicable:**

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



GW

### CHAIN OF CUSTODY

SGS North America Inc. - Dayton  
 2235 Route 130, Dayton, NJ 08810  
 TEL. 732-329-0200 FAX: 732-329-3499/3480  
 www.sgs.com/ehsusa

F

FED-EX Tracking #  
 Bottle or Container # **AK-031919-43**  
 SGS Quote # **JC85367**

Client / Reporting Information		Project Information				Requested Analysis												Matrix Codes		
Company Name: <b>Arco's - US</b>		Project Name: <b>National Gr. J, Philly Coke, Philadelphia PA</b>				<div style="display: flex; justify-content: space-between;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);"> <b>MTAL CDSS LFI</b> <b>TDS</b> </div> <div style="width: 80%;"></div> </div>												DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment OI - Oil LIQ - Other Liquid AR - Air SOL - Other Solid WP - Waste FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank		
Street Address: <b>110 W. Fayette St Suite 300</b>		City: <b>Philadelphia PA</b>		Billing Information (if different from Report to): Company Name: <b>Same</b>																
State: <b>PA</b>		Zip: <b>19106</b>		Street Address: <b>110 W. Fayette St Suite 300</b>																
City: <b>Philadelphia, NY 13202</b>		City: <b>Philadelphia PA</b>		Company Name: <b>Same</b>																
Project Contact: <b>Carly Kelly Lawrence, Kelly@arco.com</b>		Project #: <b>800367910.00005</b>		Street Address:																
Phone #: <b>315-335-9493</b>		Client Purchase Order #:		City:																
Sample(s) Name(s): <b>Evan Green</b>		Phone #: <b>603-385-2692</b>		Client Manager: <b>John Brussel</b>		Absorbance:														
SGS Service #	Field ID / Point of Collection	MEHQ/VI	Date	Time	Sampled by	Grab (G) / Comp (C)	Matrix	# of bottles	HCl	NO3-	NH4+	H2SO4	NONE	IN WATER	MEHQ	BRUCIDE	LAB USE ONLY			
	<b>Mw-167</b>		<b>3/28/19</b>	<b>10:00</b>	<b>EG</b>	<b>G</b>	<b>GW</b>	<b>2</b>						<b>2</b>						
	<b>Mw-167 MS</b>		<b>3/28/19</b>	<b>10:00</b>	<b>EG</b>	<b>G</b>	<b>GW</b>	<b>2</b>						<b>2</b>			<b>C10</b>			
	<b>Mw-167 MSD</b>		<b>3/28/19</b>	<b>10:00</b>	<b>EG</b>	<b>G</b>	<b>GW</b>	<b>2</b>						<b>2</b>			<b>659</b>			
	<b>2F PC.Mw-05</b>		<b>3/28/19</b>	<b>11:45</b>	<b>EG</b>	<b>G</b>	<b>GW</b>	<b>2</b>						<b>2</b>						
	<b>3F Gw-Dup-0328</b>		<b>3/28/19</b>	<b>-</b>	<b>EG</b>	<b>G</b>	<b>GW</b>	<b>2</b>						<b>2</b>						
	<b>4F PC.Mw-16D</b>		<b>3/28/19</b>	<b>13:35</b>	<b>EG</b>	<b>G</b>	<b>GW</b>	<b>2</b>						<b>2</b>						
Turn Around Time (Business Days)		Approved by (SGS PM) / Date:				Deliverable				Comments / Special Instructions										
<input checked="" type="checkbox"/> 10 Business Days <input type="checkbox"/> 5 Business Days <input type="checkbox"/> 3 Business Days <input type="checkbox"/> 2 Business Days <input type="checkbox"/> 1 Business Day <input type="checkbox"/> Other						<input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> NJ Reduced (Level 3) <input checked="" type="checkbox"/> Full Tier I (Level 4) <input type="checkbox"/> Commercial "C" <input type="checkbox"/> NJ DKOP				<input type="checkbox"/> NYASP Category A <input type="checkbox"/> NYASP Category B <input type="checkbox"/> MA MCP Criteria <input type="checkbox"/> CT RCP Criteria <input type="checkbox"/> State Forms <input type="checkbox"/> EDD Format										
All data available via Lablink		* Approval needed for 1-3 Business Day TAT				Commercial "A" = Results only, Commercial "B" = Results + QC Summary Commercial "C" = Results + QC Summary + Partial Raw data				<a href="http://www.sgs.com/en/terms-and-conditions">http://www.sgs.com/en/terms-and-conditions</a> <b>INITIAL ASSESSMENT 3/28</b> <b>LABEL VERIFICATION</b>										
Sample Custody must be documented below each time samples change possession, including courier delivery.																				
Relinquished by: <b>1 [Signature]</b>		Date / Time: <b>3/28/19 1530</b>		Received By: <b>[Signature]</b>		Date / Time: <b>3/28/19 1925</b>		Relinquished by: <b>2 [Signature]</b>		Date / Time: <b>3/28/19</b>		Received By: <b>[Signature]</b>		Date / Time: <b>3/28/19</b>		Received By: <b>[Signature]</b>				
Relinquished by: <b>3</b>		Date / Time:		Received By: <b>3</b>		Date / Time:		Relinquished by: <b>4</b>		Date / Time:		Received By: <b>4</b>		Date / Time:		Received By: <b>4</b>				
Relinquished by: <b>5</b>		Date / Time:		Received By: <b>5</b>		Date / Time:		Custody Seal #		<input type="checkbox"/> Intact <input type="checkbox"/> Not Intact   Absent		<input type="checkbox"/> Preserved where applicable <input type="checkbox"/> Therm. ID		<input type="checkbox"/> On Ice <input type="checkbox"/> Cooler Temp. °C <b>24.8</b>						

5.1  
5



## SGS Sample Receipt Summary

Job Number: JC85367

Client: ARCADIS U.S.

Project: NATIONAL GRID, PHILLY COKE, PHILADELPHI

Date / Time Received: 3/28/2019 6:25:00 PM

Delivery Method:

Airbill #'s:

Cooler Temps (Raw Measured) °C: Cooler 1: (2.4);

Cooler Temps (Corrected) °C: Cooler 1: (1.4);

**Cooler Security**

- |                           |                                     |           |                          |                       |                                     |           |                          |
|---------------------------|-------------------------------------|-----------|--------------------------|-----------------------|-------------------------------------|-----------|--------------------------|
|                           | <u>Y</u>                            | <u>or</u> | <u>N</u>                 |                       | <u>Y</u>                            | <u>or</u> | <u>N</u>                 |
| 1. Custody Seals Present: | <input checked="" type="checkbox"/> |           | <input type="checkbox"/> | 3. COC Present:       | <input checked="" type="checkbox"/> |           | <input type="checkbox"/> |
| 2. Custody Seals Intact:  | <input checked="" type="checkbox"/> |           | <input type="checkbox"/> | 4. Smpl Dates/Time OK | <input checked="" type="checkbox"/> |           | <input type="checkbox"/> |

**Cooler Temperature**

- |                              |                                     |           |                          |
|------------------------------|-------------------------------------|-----------|--------------------------|
|                              | <u>Y</u>                            | <u>or</u> | <u>N</u>                 |
| 1. Temp criteria achieved:   | <input checked="" type="checkbox"/> |           | <input type="checkbox"/> |
| 2. Cooler temp verification: | IR Gun                              |           |                          |
| 3. Cooler media:             | Ice (Bag)                           |           |                          |
| 4. No. Coolers:              | 1                                   |           |                          |

**Quality Control Preservation**

- |                                 |                                     |           |                          |                                     |
|---------------------------------|-------------------------------------|-----------|--------------------------|-------------------------------------|
|                                 | <u>Y</u>                            | <u>or</u> | <u>N</u>                 | <u>N/A</u>                          |
| 1. Trip Blank present / cooler: | <input type="checkbox"/>            |           | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 2. Trip Blank listed on COC:    | <input type="checkbox"/>            |           | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 3. Samples preserved properly:  | <input checked="" type="checkbox"/> |           | <input type="checkbox"/> |                                     |
| 4. VOCs headspace free:         | <input type="checkbox"/>            |           | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

**Sample Integrity - Documentation**

- |  |                                     |           |                          |
|--|-------------------------------------|-----------|--------------------------|
|  | <u>Y</u>                            | <u>or</u> | <u>N</u>                 |
| 1. Sample labels present on bottles:   | <input checked="" type="checkbox"/> |           | <input type="checkbox"/> |
| 2. Container labeling complete:        | <input checked="" type="checkbox"/> |           | <input type="checkbox"/> |
| 3. Sample container label / COC agree: | <input checked="" type="checkbox"/> |           | <input type="checkbox"/> |

**Sample Integrity - Condition**

- |                                  |                                     |           |                          |
|----------------------------------|-------------------------------------|-----------|--------------------------|
|                                  | <u>Y</u>                            | <u>or</u> | <u>N</u>                 |
| 1. Sample recvd within HT:       | <input checked="" type="checkbox"/> |           | <input type="checkbox"/> |
| 2. All containers accounted for: | <input checked="" type="checkbox"/> |           | <input type="checkbox"/> |
| 3. Condition of sample:          | Intact                              |           |                          |

**Sample Integrity - Instructions**

- |   |                                     |           |                                     |                                     |
|---|-------------------------------------|-----------|-------------------------------------|-------------------------------------|
|   | <u>Y</u>                            | <u>or</u> | <u>N</u>                            | <u>N/A</u>                          |
| 1. Analysis requested is clear:           | <input checked="" type="checkbox"/> |           | <input type="checkbox"/>            |                                     |
| 2. Bottles received for unspecified tests | <input type="checkbox"/>            |           | <input checked="" type="checkbox"/> |                                     |
| 3. Sufficient volume recvd for analysis:  | <input checked="" type="checkbox"/> |           | <input type="checkbox"/>            |                                     |
| 4. Compositing instructions clear:        | <input type="checkbox"/>            |           | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 5. Filtering instructions clear:          | <input type="checkbox"/>            |           | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

Test Strip Lot #s:      pH 1-12: 206717      pH 12+: 208717      Other: (Specify) \_\_\_\_\_

Comments

SM089-03  
Rev. Date 12/7/17

JC85367: Chain of Custody

Page 2 of 3

5.1  
5

**Job Change Order: JC85367**

**Requested Date:** 5/6/2019      **Received Date:** 3/28/2019  
**Account Name:** Arcadis      **Due Date:** 4/11/2019  
**Project Description:** National Grid, Philly Coke, Philadelphia, PA      **Deliverable:** FULT1  
**C/O Initiated By:** AK      **PM:** KR      **TAT (Days):** 14

=====  
**Sample #:** JC85367-ALL      **Change:**  
**Dept:** Please revise to MDL reporting

**TAT:** 14  
=====

**JC85367: Chain of Custody**  
**Page 3 of 3**

**Above Changes Per:** Andrew Korycinski      **Date/Time:** 5/6/2019 4:06:59 PM

To Client: This Change Order is confirmation of the revisions, previously discussed with the Client Service Representative.

### Internal Sample Tracking Chronicle

Arcadis

Job No: JC85367

National Grid, Philly Coke, Philadelphia, PA  
 Project No: B0036790.00005

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JC85367-1 MW-107	Collected: 28-MAR-19 10:00	By: EG	Received: 28-MAR-19	By: DDH		
JC85367-1	SM2540 C-11	30-MAR-19 11:55	RC			TDS
JC85367-2 PCMW-05	Collected: 28-MAR-19 11:45	By: EG	Received: 28-MAR-19	By: DDH		
JC85367-2	SM2540 C-11	30-MAR-19 11:55	RC			TDS
JC85367-3 GW-DUP-0328	Collected: 28-MAR-19 00:00	By: EG	Received: 28-MAR-19	By: DDH		
JC85367-3	SM2540 C-11	30-MAR-19 11:55	RC			TDS
JC85367-4 PCMW-16D	Collected: 28-MAR-19 13:35	By: EG	Received: 28-MAR-19	By: DDH		
JC85367-4	SM2540 C-11	30-MAR-19 11:55	RC			TDS
JC85367-1F MW-107	Collected: 28-MAR-19 10:00	By: EG	Received: 28-MAR-19	By: DDH		
JC85367-1F SW846 7470A	02-APR-19 15:28	EAL	02-APR-19	EAL		HG
JC85367-1F SW846 6010D	02-APR-19 23:45	ND	02-APR-19	BP		AG,AL,AS,BA,BE,CA,CD,CO,CR, CU,FE,K,MG,MN,NA,NI,PB,SB, SE,TL,V,ZN
JC85367-2F PCMW-05	Collected: 28-MAR-19 11:45	By: EG	Received: 28-MAR-19	By: DDH		
JC85367-2F SW846 7470A	02-APR-19 15:30	EAL	02-APR-19	EAL		HG
JC85367-2F SW846 6010D	02-APR-19 23:56	ND	02-APR-19	BP		AG,AL,AS,BA,BE,CA,CD,CO,CR, CU,FE,K,MG,MN,NA,NI,PB,SB, SE,TL,V,ZN
JC85367-3F GW-DUP-0328	Collected: 28-MAR-19 00:00	By: EG	Received: 28-MAR-19	By: DDH		
JC85367-3F SW846 7470A	02-APR-19 15:31	EAL	02-APR-19	EAL		HG

### Internal Sample Tracking Chronicle

Arcadis

Job No: JC85367

National Grid, Philly Coke, Philadelphia, PA  
 Project No: B0036790.00005

5.2  
5

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JC85367-3F SW846 6010D		03-APR-19 00:01	ND	02-APR-19	BP	AG,AL,AS,BA,BE,CA,CD,CO,CR, CU,FE,K,MG,MN,NA,NI,PB,SB, SE,TL,V,ZN
JC85367-4F Collected: 28-MAR-19 13:35 By: EG Received: 28-MAR-19 By: DDH PCMW-16D						
JC85367-4F SW846 7470A		02-APR-19 15:36	EAL	02-APR-19	EAL	HG
JC85367-4F SW846 6010D		03-APR-19 00:06	ND	02-APR-19	BP	AG,AL,AS,BA,BE,CA,CD,CO,CR, CU,FE,K,MG,NA,NI,PB,SB,SE, TL,V,ZN
JC85367-4F SW846 6010D		03-APR-19 23:10	ND	02-APR-19	BP	MN

# SGS Internal Chain of Custody

Job Number: JC85367  
 Account: BBLNYS Arcadis  
 Project: National Grid, Philly Coke, Philadelphia, PA  
 Received: 03/28/19

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC85367-1.4	Secured Staging Area	Ruchitaben Chauhan	03/30/19 12:14	Retrieve from Storage
JC85367-1.4	Ruchitaben Chauhan	Secured Storage	03/30/19 13:06	Return to Storage
JC85367-1F.1	Secured Storage	Dwayne Johnson	03/29/19 11:54	Retrieve from Storage
JC85367-1F.1	Dwayne Johnson	Secured Staging Area	03/29/19 11:54	Return to Storage
JC85367-1F.1	Secured Storage	Benjamin Gaines	04/01/19 16:44	Retrieve from Storage
Bottle was returned to secure storage, but inadvertently not scanned.				
JC85367-1F.1	Benjamin Gaines	Secured Staging Area	04/01/19 16:44	Return to Storage
JC85367-1F.1	Secured Staging Area	Bhooma Patel	04/02/19 06:40	Retrieve from Storage
JC85367-1F.1	Bhooma Patel	Secured Storage	04/02/19 10:01	Return to Storage
JC85367-1F.1.1	Bhooma Patel	Metals Digestion	04/02/19 09:29	Digestate from JC85367-1F.1
JC85367-1F.1.1	Metals Digestion	Bhooma Patel	04/02/19 09:30	Digestate from JC85367-1F.1
JC85367-1F.1.1	Bhooma Patel	Metals Digestate Storage	04/02/19 09:30	Return to Storage
JC85367-1F.2	Secured Storage	Dwayne Johnson	03/29/19 11:54	Retrieve from Storage
JC85367-1F.2	Dwayne Johnson	Secured Staging Area	03/29/19 11:54	Return to Storage
JC85367-1F.2	Secured Staging Area	Dave Hunkele	04/03/19 05:13	Retrieve from Storage
JC85367-1F.2	Dave Hunkele	Secured Storage	04/03/19 05:14	Return to Storage
JC85367-1F.3	Secured Storage	Dwayne Johnson	03/29/19 11:54	Retrieve from Storage
JC85367-1F.3	Dwayne Johnson	Secured Staging Area	03/29/19 11:54	Return to Storage
JC85367-1F.3	Secured Storage	Sahara Feliciano	03/31/19 09:30	Retrieve from Storage
Bottle was returned to secure storage, but inadvertently not scanned.				
JC85367-1F.3	Sahara Feliciano	Secured Staging Area	03/31/19 09:30	Return to Storage
JC85367-1F.3	Secured Staging Area	Lindsey Lee	04/01/19 07:19	Retrieve from Storage
JC85367-1F.3	Lindsey Lee	Secured Storage	04/01/19 15:55	Return to Storage
JC85367-1F.3	Secured Storage	Matthew Robbins	04/01/19 17:24	Retrieve from Storage
JC85367-1F.3	Matthew Robbins	Secured Staging Area	04/01/19 17:24	Return to Storage
JC85367-1F.3	Secured Staging Area	Colleen Hill	04/02/19 06:25	Retrieve from Storage
JC85367-1F.3	Colleen Hill	Secured Storage	04/02/19 12:57	Return to Storage
JC85367-2.2	Secured Staging Area	Ruchitaben Chauhan	03/30/19 12:14	Retrieve from Storage
JC85367-2.2	Ruchitaben Chauhan	Secured Storage	03/30/19 13:06	Return to Storage
JC85367-2F.1	Secured Storage	Dwayne Johnson	03/29/19 11:54	Retrieve from Storage
JC85367-2F.1	Dwayne Johnson	Secured Staging Area	03/29/19 11:54	Return to Storage
JC85367-2F.1	Secured Storage	Sahara Feliciano	03/31/19 09:30	Retrieve from Storage
Bottle was returned to secure storage, but inadvertently not scanned.				
JC85367-2F.1	Sahara Feliciano	Secured Staging Area	03/31/19 09:30	Return to Storage
JC85367-2F.1	Secured Staging Area	Lindsey Lee	04/01/19 07:19	Retrieve from Storage
JC85367-2F.1	Lindsey Lee	Secured Storage	04/01/19 15:55	Return to Storage
JC85367-2F.1	Secured Storage	Matthew Robbins	04/01/19 17:24	Retrieve from Storage
JC85367-2F.1	Matthew Robbins	Secured Staging Area	04/01/19 17:24	Return to Storage

5.3  
5

# SGS Internal Chain of Custody

Job Number: JC85367  
 Account: BBLNYS Arcadis  
 Project: National Grid, Philly Coke, Philadelphia, PA  
 Received: 03/28/19

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC85367-2F.1	Secured Staging Area	Colleen Hill	04/02/19 06:25	Retrieve from Storage
JC85367-2F.1	Colleen Hill	Bhooma Patel	04/02/19 09:18	Custody Transfer
JC85367-2F.1	Bhooma Patel	Secured Storage	04/02/19 10:01	Return to Storage
JC85367-2F.1.1	Bhooma Patel	Metals Digestion	04/02/19 09:29	Digestate from JC85367-2F.1
JC85367-2F.1.1	Metals Digestion	Bhooma Patel	04/02/19 09:30	Digestate from JC85367-2F.1
JC85367-2F.1.1	Bhooma Patel	Metals Digestate Storage	04/02/19 09:30	Return to Storage
JC85367-3.2	Secured Staging Area	Ruchitaben Chauhan	03/30/19 12:14	Retrieve from Storage
JC85367-3.2	Ruchitaben Chauhan	Secured Storage	03/30/19 13:06	Return to Storage
JC85367-3F.1	Secured Storage	Dwayne Johnson	03/29/19 11:54	Retrieve from Storage
JC85367-3F.1	Dwayne Johnson	Secured Staging Area	03/29/19 11:54	Return to Storage
JC85367-3F.1	Secured Storage	Sahara Feliciano	03/31/19 09:30	Retrieve from Storage
Bottle was returned to secure storage, but inadvertently not scanned.				
JC85367-3F.1	Sahara Feliciano	Secured Staging Area	03/31/19 09:30	Return to Storage
JC85367-3F.1	Secured Staging Area	Lindsey Lee	04/01/19 07:19	Retrieve from Storage
JC85367-3F.1	Lindsey Lee	Secured Storage	04/01/19 15:55	Return to Storage
JC85367-3F.1	Secured Storage	Matthew Robbins	04/01/19 17:24	Retrieve from Storage
JC85367-3F.1	Matthew Robbins	Secured Staging Area	04/01/19 17:24	Return to Storage
JC85367-3F.1	Secured Staging Area	Colleen Hill	04/02/19 06:25	Retrieve from Storage
JC85367-3F.1	Colleen Hill	Bhooma Patel	04/02/19 09:18	Custody Transfer
JC85367-3F.1	Bhooma Patel	Secured Storage	04/02/19 10:01	Return to Storage
JC85367-3F.1.1	Bhooma Patel	Metals Digestion	04/02/19 09:29	Digestate from JC85367-3F.1
JC85367-3F.1.1	Metals Digestion	Bhooma Patel	04/02/19 09:30	Digestate from JC85367-3F.1
JC85367-3F.1.1	Bhooma Patel	Metals Digestate Storage	04/02/19 09:30	Return to Storage
JC85367-4.2	Secured Staging Area	Ruchitaben Chauhan	03/30/19 12:14	Retrieve from Storage
JC85367-4.2	Ruchitaben Chauhan	Secured Storage	03/30/19 13:06	Return to Storage
JC85367-4F.1	Secured Storage	Dwayne Johnson	03/29/19 11:54	Retrieve from Storage
JC85367-4F.1	Dwayne Johnson	Secured Staging Area	03/29/19 11:54	Return to Storage
JC85367-4F.1	Secured Storage	Sahara Feliciano	03/31/19 09:30	Retrieve from Storage
Bottle was returned to secure storage, but inadvertently not scanned.				
JC85367-4F.1	Sahara Feliciano	Secured Staging Area	03/31/19 09:30	Return to Storage
JC85367-4F.1	Secured Staging Area	Lindsey Lee	04/01/19 07:19	Retrieve from Storage
JC85367-4F.1	Lindsey Lee	Secured Storage	04/01/19 15:55	Return to Storage
JC85367-4F.1	Secured Storage	Matthew Robbins	04/01/19 17:24	Retrieve from Storage
JC85367-4F.1	Matthew Robbins	Secured Staging Area	04/01/19 17:24	Return to Storage
JC85367-4F.1	Secured Staging Area	Colleen Hill	04/02/19 06:25	Retrieve from Storage
JC85367-4F.1	Colleen Hill	Bhooma Patel	04/02/19 09:18	Custody Transfer
JC85367-4F.1	Bhooma Patel	Secured Storage	04/02/19 10:01	Return to Storage

5.3  
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# SGS Internal Chain of Custody

**Job Number:** JC85367  
**Account:** BBLNYS Arcadis  
**Project:** National Grid, Philly Coke, Philadelphia, PA  
**Received:** 03/28/19

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC85367-4F.1.1	Bhooma Patel	Metals Digestion	04/02/19 09:29	Digestate from JC85367-4F.1
JC85367-4F.1.1	Metals Digestion	Bhooma Patel	04/02/19 09:30	Digestate from JC85367-4F.1
JC85367-4F.1.1	Bhooma Patel	Metals Digestate Storage	04/02/19 09:30	Return to Storage

5.3  
5

## Metals Analysis

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### QC Data Summaries

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#### 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
- IDL and Linear Range Summaries

SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC85367  
 Account: BBLNYS - Arcadis  
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: H7040219W1.CSV Date Analyzed: 04/02/19 Methods: SW846 7470A  
 Analyst: EAL Run ID: MA46407  
 Parameters: Hg

Time	Sample Description	Dilution Factor	PS Recov	Comments
09:46	MA46407-STD1	1		B=2.3970E-004, C=9.1873E-003, RHO=0.9991883
09:47	MA46407-STD2	1		STDB
09:49	MA46407-STD3	1		STDC
09:50	MA46407-STD4	1		STDD
09:52	MA46407-STD5	1		STDE
09:54	MA46407-STD6	1		STDF
09:57	MA46407-STD7	1		STDB
09:59	MA46407-STD8	1		STDE
10:02	MA46407-STD9	1		STDB
10:04	MA46407-STD10	1		STDE
10:07	ZZZZZZ	1		
10:11	MA46407-ICV1	1		
10:12	MA46407-ICB1	1		
10:14	MA46407-CCV1	1		
10:15	MA46407-CCB1	1		
10:17	MA46407-CRI1	1		
10:35	MP13750-MB1	1		
10:36	MP13750-B1	1		
10:37	MP13750-S1	1		
10:39	MP13750-S2	1		
10:41	JC85339-1F	1		(sample used for QC only; not part of login JC85367)
10:43	ZZZZZZ	1		
10:45	ZZZZZZ	1		
10:46	ZZZZZZ	1		
10:47	MA46407-CCV2	1		
10:49	MA46407-CCB2	1		
10:51	ZZZZZZ	1		
10:52	ZZZZZZ	1		
10:53	ZZZZZZ	1		
10:55	ZZZZZZ	1		
10:56	ZZZZZZ	1		
10:57	ZZZZZZ	1		
10:58	ZZZZZZ	1		

SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC85367  
Account: BBLNYS - Arcadis  
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: H7040219W1.CSV      Date Analyzed: 04/02/19      Methods: SW846 7470A  
Analyst: EAL      Run ID: MA46407  
Parameters: Hg

Time	Sample Description	Dilution Factor	PS Recov	Comments
11:00	ZZZZZZ	1		
11:02	ZZZZZZ	1		
11:04	MA46407-CCV3	1		
11:05	MA46407-CCB3	1		
11:07	ZZZZZZ	1		
11:09	ZZZZZZ	1		
11:10	ZZZZZZ	1		
11:11	ZZZZZZ	1		
11:13	ZZZZZZ	1		
11:14	ZZZZZZ	1		
11:15	MP13773-MB1	1		
11:17	MP13773-B1	1		
11:18	MP13773-S1	1		
11:20	ZZZZZZ	1		
11:24	MA46407-CCV4	1		
11:25	MA46407-CCB4	1		
11:27	MP13773-S2	1		
11:28	JC85326-1	1		(sample used for QC only; not part of login JC85367)
11:31	ZZZZZZ	1		
11:32	ZZZZZZ	1		
11:33	ZZZZZZ	1		
11:34	ZZZZZZ	1		
11:36	ZZZZZZ	1		
11:37	ZZZZZZ	1		
11:38	ZZZZZZ	1		
11:40	MA46407-CCV5	1		
11:41	MA46407-CCB5	1		
11:43	ZZZZZZ	1		
11:44	ZZZZZZ	1		
11:46	ZZZZZZ	1		
11:47	ZZZZZZ	1		
11:48	ZZZZZZ	1		
11:49	ZZZZZZ	1		

SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC85367  
Account: BBLNYS - Arcadis  
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: H7040219W1.CSV      Date Analyzed: 04/02/19      Methods: SW846 7470A  
Analyst: EAL      Run ID: MA46407  
Parameters: Hg

Time	Sample Description	Dilution Factor	PS Recov	Comments
11:51	ZZZZZZ	1		
11:52	ZZZZZZ	1		
11:53	ZZZZZZ	1		
11:55	MA46407-CCV6	1		
11:56	MA46407-CCB6	1		
11:58	ZZZZZZ	1		
11:59	ZZZZZZ	1		
12:01	ZZZZZZ	1		
12:02	MP13774-MB1	1		
12:03	MP13774-B1	1		
12:04	MP13774-S1	1		
12:06	MP13774-S2	1		
12:09	JC85487-1F	1		(sample used for QC only; not part of login JC85367)
12:11	ZZZZZZ	1		
12:12	MA46407-CCV7	1		
12:13	MA46407-CCB7	1		
12:15	ZZZZZZ	1		
12:17	ZZZZZZ	1		
12:20	ZZZZZZ	1		
12:22	ZZZZZZ	1		
12:24	ZZZZZZ	1		
12:25	ZZZZZZ	1		
12:28	ZZZZZZ	1		
12:33	ZZZZZZ	1		
12:41	ZZZZZZ	1		
12:52	MA46407-CCV8	1		
12:53	MA46407-CCB8	1		
12:55	ZZZZZZ	20		
12:56	ZZZZZZ	1		
12:59	ZZZZZZ	1		
13:00	ZZZZZZ	1		
13:01	ZZZZZZ	1		
13:03	ZZZZZZ	1		

SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC85367  
Account: BBLNYS - Arcadis  
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: H7040219W1.CSV      Date Analyzed: 04/02/19      Methods: SW846 7470A  
Analyst: EAL      Run ID: MA46407  
Parameters: Hg

Time	Sample Description	Dilution Factor	PS Recov	Comments
13:05	ZZZZZZ	1		
13:08	ZZZZZZ	1		
13:10	ZZZZZZ	1		
13:11	MA46407-CCV9	1		
13:13	MA46407-CCB9	1		
13:15	ZZZZZZ	1		
13:16	ZZZZZZ	1		
13:17	ZZZZZZ	1		
13:19	ZZZZZZ	1		
13:22	ZZZZZZ	1		
13:24	ZZZZZZ	1		
13:26	ZZZZZZ	1		
13:28	ZZZZZZ	1		
13:30	ZZZZZZ	1		
13:32	ZZZZZZ	1		
13:37	ZZZZZZ	1		
13:45	MA46407-CCV10	1		
13:46	MA46407-CCB10	1		
13:48	MP13776-MB1	1		
13:50	MP13776-B1	1		
13:51	MP13776-S1	1		
13:53	MP13776-S2	1		
13:55	JC85409-1F	1		(sample used for QC only; not part of login JC85367)
13:57	ZZZZZZ	2		
13:59	ZZZZZZ	1		
14:01	ZZZZZZ	1		
14:04	ZZZZZZ	10		
14:05	MA46407-CCV11	1		
14:07	MA46407-CCB11	1		
14:09	ZZZZZZ	1		
14:11	ZZZZZZ	1		
14:13	ZZZZZZ	1		
14:15	ZZZZZZ	1		

SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC85367  
Account: BBLNYS - Arcadis  
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: H7040219W1.CSV      Date Analyzed: 04/02/19      Methods: SW846 7470A  
Analyst: EAL      Run ID: MA46407  
Parameters: Hg

Time	Sample Description	Dilution Factor	PS Recov	Comments
14:16	ZZZZZZ	1		
14:19	ZZZZZZ	1		
14:21	ZZZZZZ	1		
14:22	ZZZZZZ	1		
14:23	ZZZZZZ	1		
14:26	MA46407-CCV12	1		
14:29	MA46407-CCB12	1		
14:31	ZZZZZZ	1		
14:33	ZZZZZZ	1		
14:34	ZZZZZZ	2		
14:35	ZZZZZZ	1		
14:37	ZZZZZZ	20		
14:39	ZZZZZZ	20		
14:42	ZZZZZZ	20		
14:44	ZZZZZZ	20		
14:46	ZZZZZZ	1		
14:48	MA46407-CCV13	1		
14:50	MA46407-CCB13	1		
14:52	ZZZZZZ	1		
14:53	ZZZZZZ	50		
14:55	ZZZZZZ	1		
14:57	ZZZZZZ	1		
14:59	ZZZZZZ	1		
15:01	ZZZZZZ	2		
15:03	ZZZZZZ	2		
15:05	ZZZZZZ	1		
15:07	ZZZZZZ	1		
15:13	MA46407-CCV14	1		
15:14	MA46407-CCB14	1		
15:16	ZZZZZZ	1		
15:18	ZZZZZZ	1		
15:20	MP13777-MB1	1		
15:22	MP13777-B1	1		

SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC85367  
Account: BBLNYS - Arcadis  
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: H7040219W1.CSV      Date Analyzed: 04/02/19      Methods: SW846 7470A  
Analyst: EAL      Run ID: MA46407  
Parameters: Hg

Time	Sample Description	Dilution Factor	PS Recov	Comments
15:23	MP13777-S1	1		
15:26	MP13777-S2	1		
15:28	JC85367-1F	1		
15:30	JC85367-2F	1		
15:31	JC85367-3F	1		
15:32	MA46407-CCV15	1		
15:34	MA46407-CCB15	1		
15:36	JC85367-4F	1		
----->	Last reportable sample/prep for job JC85367			
15:37	ZZZZZZ	1		
15:38	ZZZZZZ	1		
15:40	ZZZZZZ	1		
15:41	ZZZZZZ	1		
15:42	ZZZZZZ	1		
15:43	ZZZZZZ	1		
15:45	MA46407-CCV16	1		
15:46	MA46407-CCB16	1		
15:48	ZZZZZZ	10		
15:50	ZZZZZZ	1		
15:52	ZZZZZZ	1		
15:53	ZZZZZZ	1		
15:56	ZZZZZZ	20		
15:57	ZZZZZZ	20		
16:00	MA46407-CCV17	1		
16:02	MA46407-CCB17	1		
16:05	ZZZZZZ	20		
16:06	ZZZZZZ	20		
16:17	ZZZZZZ	20		
16:18	ZZZZZZ	20		
16:21	ZZZZZZ	2		
16:23	ZZZZZZ	20		
16:25	ZZZZZZ	1		
16:27	MA46407-CRI2	1		
16:29	MA46407-CCV18	1		



SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC85367  
Account: BBLNYS - Arcadis  
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: H7040219W1.CSV      Date Analyzed: 04/02/19      Methods: SW846 7470A  
Analyst: EAL      Run ID: MA46407  
Parameters: Hg

Time	Sample Description	Dilution Factor	PS Recov	Comments
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16:30 MA46407-CCB18 1  
-----> Last reportable CCB for job JC85367  
Refer to raw data for calibration curve and standards.

6.1  
6

REPORTED ELEMENTS SUMMARY

Login Number: JC85367  
 Account: BBLNYS - Arcadis  
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: H7040219W1.CSV Date Analyzed: 04/02/19 Methods: SW846 7470A  
 Analyst: EAL Run ID: MA46407  
 Parameters: Hg

Time	Sample Description	Element: H Dilution g
10:07	ZZZZZZ	1
10:11	MA46407-ICV1	1 X
10:12	MA46407-ICB1	1 X
10:14	MA46407-CCV1	1 X
10:15	MA46407-CCB1	1 X
10:17	MA46407-CRI1	1 X
10:35	MP13750-MB1	1 X
10:36	MP13750-B1	1 X
10:37	MP13750-S1	1 X
10:39	MP13750-S2	1 X
10:41	JC85339-1F	1 X (a)
10:43	ZZZZZZ	1
10:45	ZZZZZZ	1
10:46	ZZZZZZ	1
10:47	MA46407-CCV2	1 X
10:49	MA46407-CCB2	1 X
10:51	ZZZZZZ	1
10:52	ZZZZZZ	1
10:53	ZZZZZZ	1
10:55	ZZZZZZ	1
10:56	ZZZZZZ	1
10:57	ZZZZZZ	1
10:58	ZZZZZZ	1
11:00	ZZZZZZ	1
11:02	ZZZZZZ	1
11:04	MA46407-CCV3	1 X
11:05	MA46407-CCB3	1 X
11:07	ZZZZZZ	1
11:09	ZZZZZZ	1
11:10	ZZZZZZ	1
11:11	ZZZZZZ	1
11:13	ZZZZZZ	1
11:14	ZZZZZZ	1

Element: H  
g

REPORTED ELEMENTS SUMMARY

Login Number: JC85367  
 Account: BBLNYS - Arcadis  
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: H7040219W1.CSV Date Analyzed: 04/02/19 Methods: SW846 7470A  
 Analyst: EAL Run ID: MA46407  
 Parameters: Hg

Time	Sample Description	Element:	H Dilution g
11:15	MP13773-MB1	1	X
11:17	MP13773-B1	1	X
11:18	MP13773-S1	1	X
11:20	ZZZZZZ	1	
11:24	MA46407-CCV4	1	X
11:25	MA46407-CCB4	1	X
11:27	MP13773-S2	1	X
11:28	JC85326-1	1	X (a)
11:31	ZZZZZZ	1	
11:32	ZZZZZZ	1	
11:33	ZZZZZZ	1	
11:34	ZZZZZZ	1	
11:36	ZZZZZZ	1	
11:37	ZZZZZZ	1	
11:38	ZZZZZZ	1	
11:40	MA46407-CCV5	1	X
11:41	MA46407-CCB5	1	X
11:43	ZZZZZZ	1	
11:44	ZZZZZZ	1	
11:46	ZZZZZZ	1	
11:47	ZZZZZZ	1	
11:48	ZZZZZZ	1	
11:49	ZZZZZZ	1	
11:51	ZZZZZZ	1	
11:52	ZZZZZZ	1	
11:53	ZZZZZZ	1	
11:55	MA46407-CCV6	1	X
11:56	MA46407-CCB6	1	X
11:58	ZZZZZZ	1	
11:59	ZZZZZZ	1	
12:01	ZZZZZZ	1	
12:02	MP13774-MB1	1	X
12:03	MP13774-B1	1	X
		Element:	H g

6.1.1  
6

REPORTED ELEMENTS SUMMARY

Login Number: JC85367  
 Account: BBLNYS - Arcadis  
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: H7040219W1.CSV Date Analyzed: 04/02/19 Methods: SW846 7470A  
 Analyst: EAL Run ID: MA46407  
 Parameters: Hg

Time	Sample Description	Element:	Dilution	Hg
12:04	MP13774-S1		1	X
12:06	MP13774-S2		1	X
12:09	JC85487-1F		1	X (a)
12:11	ZZZZZZ		1	
12:12	MA46407-CCV7		1	X
12:13	MA46407-CCB7		1	X
12:15	ZZZZZZ		1	
12:17	ZZZZZZ		1	
12:20	ZZZZZZ		1	
12:22	ZZZZZZ		1	
12:24	ZZZZZZ		1	
12:25	ZZZZZZ		1	
12:28	ZZZZZZ		1	
12:33	ZZZZZZ		1	
12:41	ZZZZZZ		1	
12:52	MA46407-CCV8		1	X
12:53	MA46407-CCB8		1	X
12:55	ZZZZZZ		20	
12:56	ZZZZZZ		1	
12:59	ZZZZZZ		1	
13:00	ZZZZZZ		1	
13:01	ZZZZZZ		1	
13:03	ZZZZZZ		1	
13:05	ZZZZZZ		1	
13:08	ZZZZZZ		1	
13:10	ZZZZZZ		1	
13:11	MA46407-CCV9		1	X
13:13	MA46407-CCB9		1	X
13:15	ZZZZZZ		1	
13:16	ZZZZZZ		1	
13:17	ZZZZZZ		1	
13:19	ZZZZZZ		1	
13:22	ZZZZZZ		1	
		Element:	Hg	

6.1.1  
6

REPORTED ELEMENTS SUMMARY

Login Number: JC85367  
 Account: BBLNYS - Arcadis  
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: H7040219W1.CSV Date Analyzed: 04/02/19 Methods: SW846 7470A  
 Analyst: EAL Run ID: MA46407  
 Parameters: Hg

Time	Sample Description	Element: H Dilution g
13:24	ZZZZZZ	1
13:26	ZZZZZZ	1
13:28	ZZZZZZ	1
13:30	ZZZZZZ	1
13:32	ZZZZZZ	1
13:37	ZZZZZZ	1
13:45	MA46407-CCV10	1 X
13:46	MA46407-CCB10	1 X
13:48	MP13776-MB1	1 X
13:50	MP13776-B1	1 X
13:51	MP13776-S1	1 X
13:53	MP13776-S2	1 X
13:55	JC85409-1F	1 X (a)
13:57	ZZZZZZ	2
13:59	ZZZZZZ	1
14:01	ZZZZZZ	1
14:04	ZZZZZZ	10
14:05	MA46407-CCV11	1 X
14:07	MA46407-CCB11	1 X
14:09	ZZZZZZ	1
14:11	ZZZZZZ	1
14:13	ZZZZZZ	1
14:15	ZZZZZZ	1
14:16	ZZZZZZ	1
14:19	ZZZZZZ	1
14:21	ZZZZZZ	1
14:22	ZZZZZZ	1
14:23	ZZZZZZ	1
14:26	MA46407-CCV12	1 X
14:29	MA46407-CCB12	1 X
14:31	ZZZZZZ	1
14:33	ZZZZZZ	1
14:34	ZZZZZZ	2

Element: H  
g

REPORTED ELEMENTS SUMMARY

Login Number: JC85367  
 Account: BBLNYS - Arcadis  
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: H7040219W1.CSV Date Analyzed: 04/02/19 Methods: SW846 7470A  
 Analyst: EAL Run ID: MA46407  
 Parameters: Hg

Time	Sample Description	Element: H Dilution g
14:35	ZZZZZZ	1
14:37	ZZZZZZ	20
14:39	ZZZZZZ	20
14:42	ZZZZZZ	20
14:44	ZZZZZZ	20
14:46	ZZZZZZ	1
14:48	MA46407-CCV13	1 X
14:50	MA46407-CCB13	1 X
14:52	ZZZZZZ	1
14:53	ZZZZZZ	50
14:55	ZZZZZZ	1
14:57	ZZZZZZ	1
14:59	ZZZZZZ	1
15:01	ZZZZZZ	2
15:03	ZZZZZZ	2
15:05	ZZZZZZ	1
15:07	ZZZZZZ	1
15:13	MA46407-CCV14	1 X
15:14	MA46407-CCB14	1 X
15:16	ZZZZZZ	1
15:18	ZZZZZZ	1
15:20	MP13777-MB1	1 X
15:22	MP13777-B1	1 X
15:23	MP13777-S1	1 X
15:26	MP13777-S2	1 X
15:28	JC85367-1F	1 X
15:30	JC85367-2F	1 X
15:31	JC85367-3F	1 X
15:32	MA46407-CCV15	1 X
15:34	MA46407-CCB15	1 X
15:36	JC85367-4F	1 X
15:37	ZZZZZZ	1
15:38	ZZZZZZ	1

Element: H  
g

REPORTED ELEMENTS SUMMARY

Login Number: JC85367  
 Account: BBLNYS - Arcadis  
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: H7040219W1.CSV Date Analyzed: 04/02/19 Methods: SW846 7470A  
 Analyst: EAL Run ID: MA46407  
 Parameters: Hg

Time	Sample Description	Element: H Dilution g
15:40	ZZZZZZ	1
15:41	ZZZZZZ	1
15:42	ZZZZZZ	1
15:43	ZZZZZZ	1
15:45	MA46407-CCV16	1 X
15:46	MA46407-CCB16	1 X
15:48	ZZZZZZ	10
15:50	ZZZZZZ	1
15:52	ZZZZZZ	1
15:53	ZZZZZZ	1
15:56	ZZZZZZ	20
15:57	ZZZZZZ	20
16:00	MA46407-CCV17	1 X
16:02	MA46407-CCB17	1 X
16:05	ZZZZZZ	20
16:06	ZZZZZZ	20
16:17	ZZZZZZ	20
16:18	ZZZZZZ	20
16:21	ZZZZZZ	2
16:23	ZZZZZZ	20
16:25	ZZZZZZ	1
16:27	MA46407-CRI2	1 X
16:29	MA46407-CCV18	1 X
16:30	MA46407-CCB18	1 X

(a) Sample used for QC only; not part of login JC85367.

Element: H  
g

BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC85367  
 Account: BBLNYS - Arcadis  
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: H7040219W1.CSV Date Analyzed: 04/02/19 Methods: SW846 7470A  
 QC Limits: result < RL Run ID: MA46407 Units: ug/l

	Time:		10:12		10:15		10:49		11:05	
	Sample ID:		ICB1		CCB1		CCB2		CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Mercury	0.20	.035	-0.00570	<0.20	-0.00970	<0.20	0.00390	<0.20	0.000100	<0.20

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

6.1.2  
 6



BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC85367  
 Account: BBLNYS - Arcadis  
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: H7040219W1.CSV Date Analyzed: 04/02/19 Methods: SW846 7470A  
 QC Limits: result < RL Run ID: MA46407 Units: ug/l

	Time:		11:25		11:41		11:56		12:13	
	Sample ID:		CCB4		CCB5		CCB6		CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Mercury	0.20	.035	-0.00880	<0.20	-0.00900	<0.20	-0.00210	<0.20	-0.0143	<0.20

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

6.1.2  
 6

BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC85367  
 Account: BBLNYS - Arcadis  
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: H7040219W1.CSV      Date Analyzed: 04/02/19      Methods: SW846 7470A  
 QC Limits: result < RL      Run ID: MA46407      Units: ug/l

	Time:		12:53		13:13		13:46		14:07	
	Sample ID:		CCB8		CCB9		CCB10		CCB11	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Mercury	0.20	.035	-0.00690	<0.20	-0.0198	<0.20	-0.00280	<0.20	-0.00710	<0.20

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

6.1.2  
 6

BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC85367  
 Account: BBLNYS - Arcadis  
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: H7040219W1.CSV Date Analyzed: 04/02/19 Methods: SW846 7470A  
 QC Limits: result < RL Run ID: MA46407 Units: ug/l

Time:			14:29			14:50			15:14			15:34
Sample ID:	RL	IDL	CCB12	final	CCB13	final	CCB14	final	CCB15	final		
Metal			raw		raw		raw		raw		raw	final
Mercury	0.20	.035	-0.0443	<0.20	-0.00450	<0.20	-0.0270	<0.20	-0.00330	<0.20		

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

6.1.2  
 6

BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC85367  
 Account: BBLNYS - Arcadis  
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: H7040219W1.CSV Date Analyzed: 04/02/19 Methods: SW846 7470A  
 QC Limits: result < RL Run ID: MA46407 Units: ug/l

	Time:		15:46		16:02		16:30	
	Sample ID:		CCB16		CCB17		CCB18	
Metal	RL	IDL	raw	final	raw	final	raw	final

Mercury	0.20	.035	-0.00640	<0.20	-0.0121	<0.20	0.000600	<0.20
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(\*) Outside of QC limits  
 (anr) Analyte not requested

6.1.2  
 6

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC85367  
Account: BBLNYS - Arcadis  
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: H7040219W1.CSV      Date Analyzed: 04/02/19      Methods: SW846 7470A  
QC Limits: 90 to 110 % Recovery      Run ID: MA46407      Units: ug/l

	Time:									
Sample ID:	ICV	10:11 ICV1		CCV	10:14 CCV1		CCV	10:47 CCV2		
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec	
Mercury	3	3.01	100.3	2.5	2.36	94.4	2.5	2.37	94.8	

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

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC85367  
Account: BBLNYS - Arcadis  
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: H7040219W1.CSV      Date Analyzed: 04/02/19      Methods: SW846 7470A  
QC Limits: 90 to 110 % Recovery      Run ID: MA46407      Units: ug/l

	Time:	11:04		11:24		11:40			
Sample ID:	CCV	CCV3	CCV	CCV4	CCV	CCV5	Results	% Rec	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Mercury	2.5	2.35	94.0	2.5	2.47	98.8	2.5	2.42	96.8

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

6.1.3

6

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC85367  
Account: BBLNYS - Arcadis  
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: H7040219W1.CSV      Date Analyzed: 04/02/19      Methods: SW846 7470A  
QC Limits: 90 to 110 % Recovery      Run ID: MA46407      Units: ug/l

	Time:	11:55		12:12		12:52			
Sample ID:	CCV	CCV6	CCV	CCV7	CCV	CCV8			
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Mercury	2.5	2.43	97.2	2.5	2.31	92.4	2.5	2.47	98.8

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

6.1.3

6

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC85367  
Account: BBLNYS - Arcadis  
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: H7040219W1.CSV      Date Analyzed: 04/02/19      Methods: SW846 7470A  
QC Limits: 90 to 110 % Recovery      Run ID: MA46407      Units: ug/l

	Time:	13:11		13:45		14:05			
Sample ID:	CCV	CCV9	CCV	CCV10	CCV	CCV11			
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Mercury	2.5	2.39	95.6	2.5	2.63	105.2	2.5	2.60	104.0

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

6.1.3

6



CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC85367  
Account: BBLNYS - Arcadis  
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: H7040219W1.CSV      Date Analyzed: 04/02/19      Methods: SW846 7470A  
QC Limits: 90 to 110 % Recovery      Run ID: MA46407      Units: ug/l

	Time:	14:26		14:48		15:13			
Sample ID:	CCV	CCV12	CCV	CCV13	CCV	CCV14			
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Mercury	2.5	2.54	101.6	2.5	2.52	100.8	2.5	2.56	102.4

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

6.1.3

6

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC85367  
Account: BBLNYS - Arcadis  
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: H7040219W1.CSV      Date Analyzed: 04/02/19      Methods: SW846 7470A  
QC Limits: 90 to 110 % Recovery      Run ID: MA46407      Units: ug/l

	Time:	15:32		15:45		16:00			
Sample ID:	CCV	CCV15	CCV	CCV16	CCV	CCV17			
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Mercury	2.5	2.52	100.8	2.5	2.52	100.8	2.5	2.53	101.2

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

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC85367  
Account: BBLNYS - Arcadis  
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: H7040219W1.CSV      Date Analyzed: 04/02/19      Methods: SW846 7470A  
QC Limits: 90 to 110 % Recovery      Run ID: MA46407      Units: ug/l

Time:	16:29		
Sample ID: CCV	CCV18		
Metal	True	Results	% Rec

Mercury      2.5      2.45      98.0

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

6.1.3

6

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC85367  
 Account: BBLNYS - Arcadis  
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: H7040219W1.CSV Date Analyzed: 04/02/19 Methods: SW846 7470A  
 QC Limits: 70 to 130 % Recovery Run ID: MA46407 Units: ug/l

	Time:		10:17		16:27	
Sample ID:	CRI	CRIA	CRI1		CRI2	
Metal	True	True	Results	% Rec	Results	% Rec
Mercury	0.20		0.155	77.5	0.164	82.0

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

6.1.4

6

SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC85367  
 Account: BBLNYS - Arcadis  
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SD040219M1.ICP Date Analyzed: 04/02/19 Methods: EPA 200.7, SW846 6010D  
 Analyst: ND Run ID: MA46414  
 Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
18:54	MA46414-STD1	1		STDA
19:00	MA46414-STD2	1		STDB
19:05	ZZZZZZ	1		
19:10	ZZZZZZ	1		
19:15	MA46414-ICV1	1		
19:20	MA46414-ICB1	1		
19:26	MA46414-ICCV1	1		
19:36	MA46414-CCB1	1		
19:41	MA46414-CRI1	1		
19:46	MA46414-CRID1	1		
19:52	MA46414-ICSA1	1		
19:57	MA46414-ICSAB1	1		
20:03	MA46414-HSTD1	1		
20:08	MA46414-HSTD2	1		
20:14	ZZZZZZ	1		
20:19	ZZZZZZ	1		
20:25	ZZZZZZ	1		
20:30	MA46414-CCV1	1		
20:35	MA46414-CCB2	1		
20:40	MP13762-MB1	1		
20:45	MP13762-B1	1		
20:50	MP13762-S1	1		Na>3000ppm, In out
20:55	MP13762-S2	1		Na>3000ppm, In out
21:01	JC85326-1	1		(sample used for QC only; not part of login JC85367)
21:06	MP13762-SD1	5		Na>3000ppm, In out
21:11	ZZZZZZ	1		
21:17	ZZZZZZ	1		
21:22	ZZZZZZ	1		
21:28	MA46414-CCV2	1		
21:32	MA46414-CCB3	1		
21:38	ZZZZZZ	1		
21:43	ZZZZZZ	1		
21:49	ZZZZZZ	1		

SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC85367  
Account: BBLNYS - Arcadis  
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SD040219M1.ICP Date Analyzed: 04/02/19 Methods: EPA 200.7, SW846 6010D  
Analyst: ND Run ID: MA46414  
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
21:54	ZZZZZZ	1		
22:00	ZZZZZZ	1		
22:05	ZZZZZZ	1		
22:10	ZZZZZZ	1		
22:16	ZZZZZZ	1		
22:21	ZZZZZZ	1		
22:27	MA46414-CCV3	1		
22:31	MA46414-CCB4	1		
22:37	ZZZZZZ	1		
22:42	ZZZZZZ	1		
22:47	ZZZZZZ	1		
22:53	ZZZZZZ	1		
22:58	ZZZZZZ	1		
23:04	ZZZZZZ	1		
23:09	ZZZZZZ	1		
23:15	MP13758-MB1	1		
23:20	MP13758-B1	1		
23:25	MA46414-CCV4	1		
23:30	MA46414-CCB5	1		
23:35	MP13758-S1	1		
23:40	MP13758-S2	1		
23:45	JC85367-1F	1		
23:50	MP13758-SD1	5		
23:56	JC85367-2F	1		
00:01	JC85367-3F	1		
00:06	JC85367-4F	1		Mn high RSD
----->	Last reportable sample/prep for job JC85367			
00:11	ZZZZZZ	1		
00:17	ZZZZZZ	1		
00:22	MA46414-CCV5	1		
00:27	MA46414-CCB6	1		
----->	Last reportable CCB for job JC85367			
00:32	ZZZZZZ	1		
00:37	ZZZZZZ	1		
00:42	ZZZZZZ	1		

SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC85367  
Account: BBLNYS - Arcadis  
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SD040219M1.ICP Date Analyzed: 04/02/19 Methods: EPA 200.7, SW846 6010D  
Analyst: ND Run ID: MA46414  
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
00:47	ZZZZZZ	1		
00:52	ZZZZZZ	1		
00:58	ZZZZZZ	1		
01:03	ZZZZZZ	1		
01:09	ZZZZZZ	1		
01:14	ZZZZZZ	1		
01:19	MA46414-CCV6	1		FE out
01:24	MA46414-CCB7	1		
01:29	ZZZZZZ	1		
01:35	ZZZZZZ	1		
01:40	ZZZZZZ	1		
01:45	ZZZZZZ	1		
01:51	ZZZZZZ	1		
01:56	ZZZZZZ	1		
02:01	ZZZZZZ	1		
02:07	ZZZZZZ	1		
02:12	ZZZZZZ	1		
02:17	ZZZZZZ	1		
02:23	ZZZZZZ	1		
02:28	ZZZZZZ	1		
02:33	MA46414-CCV7	1		
02:38	MA46414-CCB8	1		
02:43	ZZZZZZ	1		
02:49	ZZZZZZ	1		
02:54	MP13751-MB1	1		CCV out
02:59	MP13751-B1	1		CCV out
03:04	MP13751-S1	1		Need PS for Be and Ca on undiluted sample.
03:09	MP13751-S2	1		Need PS for Be and Ca on undiluted sample.
03:14	JC85273-1	1		(sample used for QC only; not part of login JC85367)
03:20	MP13751-SD1	5		
03:25	ZZZZZZ	1		
03:30	MA46414-CCV8	1		Fe out
03:35	MA46414-CCB9	1		

SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC85367  
Account: BBLNYS - Arcadis  
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SD040219M1.ICP Date Analyzed: 04/02/19 Methods: EPA 200.7, SW846 6010D  
Analyst: ND Run ID: MA46414  
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
03:40	ZZZZZZ	1		
03:45	ZZZZZZ	1		
03:51	ZZZZZZ	1		
03:56	ZZZZZZ	1		
04:01	ZZZZZZ	1		
04:06	ZZZZZZ	1		
04:11	ZZZZZZ	1		
04:17	ZZZZZZ	1		
04:22	ZZZZZZ	1		
04:27	ZZZZZZ	1		
04:32	MA46414-CCV9	1		FE, Mg and Na out
04:37	MA46414-CCB10	1		
04:42	ZZZZZZ	1		
04:47	ZZZZZZ	1		
04:52	ZZZZZZ	1		
04:57	ZZZZZZ	1		
05:02	ZZZZZZ	1		
05:08	ZZZZZZ	1		
05:13	ZZZZZZ	1		
05:18	ZZZZZZ	1		
05:23	MP13761-MB1	1		
05:28	MP13761-B1	1		
05:33	MA46414-CCV10	1		
05:38	MA46414-CCB11	1		
05:43	MP13761-S1	1		
05:48	MP13761-S2	1		
05:53	JC85321-4	1		(sample used for QC only; not part of login JC85367)
05:59	MP13761-SD1	5		
06:04	ZZZZZZ	1		
06:09	ZZZZZZ	1		
06:14	ZZZZZZ	1		
06:19	ZZZZZZ	1		
06:24	ZZZZZZ	1		



SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC85367  
Account: BBLNYS - Arcadis  
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SD040219M1.ICP Date Analyzed: 04/02/19 Methods: EPA 200.7, SW846 6010D  
Analyst: ND Run ID: MA46414  
Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
06:30	ZZZZZZ	1		
06:35	MA46414-CCV11	1		FE out
06:40	MA46414-CCB12	1		
06:45	ZZZZZZ	1		
06:50	ZZZZZZ	1		
06:56	ZZZZZZ	1		
07:01	ZZZZZZ	1		
07:06	ZZZZZZ	1		
07:12	ZZZZZZ	1		
07:17	ZZZZZZ	1		
07:23	ZZZZZZ	1		
07:28	ZZZZZZ	1		
07:33	ZZZZZZ	1		
07:39	MA46414-CCV12	1		
07:43	MA46414-CCB13	1		
07:49	ZZZZZZ	1		
07:54	ZZZZZZ	1		
08:06	ZZZZZZ	1		
08:11	MA46414-CCV13	1		
08:16	MA46414-CCB14	1		

Refer to raw data for calibration curve and standards.

6.2  
6

REPORTED ELEMENTS SUMMARY

Login Number: JC85367  
 Account: BBLNYS - Arcadis  
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SD040219M1.ICP Date Analyzed: 04/02/19 Methods: EPA 200.7, SW846 6010D  
 Analyst: ND Run ID: MA46414  
 Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Element Dilution	A	S	A	B	B	C	C	C	C	F	P	M	M	N	K	S	A	N	T	V	Z
			l	b	s	a	e	d	a	r	o	u	e	b	g	n	i	e	g	a	l	n	
19:05	ZZZZZ	1																					
19:10	ZZZZZ	1																					
19:15	MA46414-ICV1	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
19:20	MA46414-ICB1	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
19:26	MA46414-ICCV1	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
19:36	MA46414-CCB1	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
19:41	MA46414-CRI1	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
19:46	MA46414-CRID1	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
19:52	MA46414-ICSA1	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
19:57	MA46414-ICSAB1	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
20:03	MA46414-HSTD1	1		X	X	X	X		X	X	X		X		X	X		X	X		X	X	X
20:08	MA46414-HSTD2	1	X						X				X		X			X			X		
20:14	ZZZZZ	1																					
20:19	ZZZZZ	1																					
20:25	ZZZZZ	1																					
20:30	MA46414-CCV1	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
20:35	MA46414-CCB2	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
20:40	MP13762-MB1	1	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X
20:45	MP13762-B1	1	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X
20:50	MP13762-S1	1	X	X		X	X	X	X		X	X		X		X	X	X		X	X		X
20:55	MP13762-S2	1	X	X		X	X	X	X		X	X		X		X	X	X		X	X		X
21:01	JC85326-1	1	X	X		X	X	X	X		X	X		X		X	X	X		X	X		(a)
21:06	MP13762-SD1	5	X	X		X	X	X	X		X	X		X		X	X	X		X	X		X
21:11	ZZZZZ	1																					
21:17	ZZZZZ	1																					
21:22	ZZZZZ	1																					
21:28	MA46414-CCV2	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
21:32	MA46414-CCB3	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
21:38	ZZZZZ	1																					
21:43	ZZZZZ	1																					
21:49	ZZZZZ	1																					
21:54	ZZZZZ	1																					
22:00	ZZZZZ	1																					

6.2.1  
6

REPORTED ELEMENTS SUMMARY

Login Number: JC85367  
 Account: BBLNYS - Arcadis  
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SD040219M1.ICP Date Analyzed: 04/02/19 Methods: EPA 200.7, SW846 6010D  
 Analyst: ND Run ID: MA46414  
 Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Element Dilution	A	S	A	B	B	C	C	C	C	F	P	M	M	N	K	S	A	N	T	V	Z	
			l	b	s	a	e	d	a	r	o	u	e	b	g	n	i	e	g	a	l	n		
22:05	ZZZZZZ	1																						
22:10	ZZZZZZ	1																						
22:16	ZZZZZZ	1																						
22:21	ZZZZZZ	1																						
22:27	MA46414-CCV3	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
22:31	MA46414-CCB4	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
22:37	ZZZZZZ	1																						
22:42	ZZZZZZ	1																						
22:47	ZZZZZZ	1																						
22:53	ZZZZZZ	1																						
22:58	ZZZZZZ	1																						
23:04	ZZZZZZ	1																						
23:09	ZZZZZZ	1																						
23:15	MP13758-MB1	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
23:20	MP13758-B1	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
23:25	MA46414-CCV4	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
23:30	MA46414-CCB5	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
23:35	MP13758-S1	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
23:40	MP13758-S2	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
23:45	JC85367-1F	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
23:50	MP13758-SD1	5	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
23:56	JC85367-2F	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
00:01	JC85367-3F	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
00:06	JC85367-4F	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
00:11	ZZZZZZ	1																						
00:17	ZZZZZZ	1																						
00:22	MA46414-CCV5	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
00:27	MA46414-CCB6	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
00:32	ZZZZZZ	1																						
00:37	ZZZZZZ	1																						
00:42	ZZZZZZ	1																						
00:47	ZZZZZZ	1																						
00:52	ZZZZZZ	1																						

Element: A S A B B C C C C F P M M N K S A N T V Z  
 l b s a e d a r o u e b g n i e g a l n

REPORTED ELEMENTS SUMMARY

Login Number: JC85367  
 Account: BBLNYS - Arcadis  
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SD040219M1.ICP Date Analyzed: 04/02/19 Methods: EPA 200.7, SW846 6010D  
 Analyst: ND Run ID: MA46414  
 Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

Time	Sample Description	Element: Dilution	A	S	A	B	B	C	C	C	C	F	P	M	M	N	K	S	A	N	T	V	Z
			l	b	s	a	e	d	a	r	o	u	e	b	g	n	i	e	g	a	l	n	
00:58	ZZZZZZ	1																					
01:03	ZZZZZZ	1																					
01:09	ZZZZZZ	1																					
01:14	ZZZZZZ	1																					
01:19	MA46414-CCV6	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
01:24	MA46414-CCB7	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
01:29	ZZZZZZ	1																					
01:35	ZZZZZZ	1																					
01:40	ZZZZZZ	1																					
01:45	ZZZZZZ	1																					
01:51	ZZZZZZ	1																					
01:56	ZZZZZZ	1																					
02:01	ZZZZZZ	1																					
02:07	ZZZZZZ	1																					
02:12	ZZZZZZ	1																					
02:17	ZZZZZZ	1																					
02:23	ZZZZZZ	1																					
02:28	ZZZZZZ	1																					
02:33	MA46414-CCV7	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
02:38	MA46414-CCB8	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
02:43	ZZZZZZ	1																					
02:49	ZZZZZZ	1																					
02:54	MP13751-MB1	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
02:59	MP13751-B1	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
03:04	MP13751-S1	1	X		X	X	X	X	X		X		X	X	X		X	X	X	X	X	X	X
03:09	MP13751-S2	1	X		X	X	X	X	X		X		X	X	X		X	X	X	X	X	X	X
03:14	JC85273-1	1				X																	(a)
03:20	MP13751-SD1	5	X		X	X	X	X	X		X		X	X	X		X	X	X	X	X	X	X
03:25	ZZZZZZ	1																					
03:30	MA46414-CCV8	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
03:35	MA46414-CCB9	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
03:40	ZZZZZZ	1																					
03:45	ZZZZZZ	1																					

6.2.1  
6

REPORTED ELEMENTS SUMMARY

Login Number: JC85367  
 Account: BBLNYS - Arcadis  
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SD040219M1.ICP Date Analyzed: 04/02/19 Methods: EPA 200.7, SW846 6010D  
 Analyst: ND Run ID: MA46414  
 Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

Time	Sample Description	Dilution	Element:	A	S	A	B	B	C	C	C	C	F	P	M	N	K	S	A	N	T	V	Z
			Dilution	l	b	s	a	e	d	a	r	o	u	e	b	g	n	i	e	g	a	l	n
03:51	ZZZZZZ	1																					
03:56	ZZZZZZ	1																					
04:01	ZZZZZZ	1																					
04:06	ZZZZZZ	1																					
04:11	ZZZZZZ	1																					
04:17	ZZZZZZ	1																					
04:22	ZZZZZZ	1																					
04:27	ZZZZZZ	1																					
04:32	MA46414-CCV9	1		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
04:37	MA46414-CCB10	1		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
04:42	ZZZZZZ	1																					
04:47	ZZZZZZ	1																					
04:52	ZZZZZZ	1																					
04:57	ZZZZZZ	1																					
05:02	ZZZZZZ	1																					
05:08	ZZZZZZ	1																					
05:13	ZZZZZZ	1																					
05:18	ZZZZZZ	1																					
05:23	MP13761-MB1	1		X		X	X		X				X		X				X	X			
05:28	MP13761-B1	1		X		X	X		X				X		X				X	X			
05:33	MA46414-CCV10	1		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
05:38	MA46414-CCB11	1		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
05:43	MP13761-S1	1		X		X	X		X				X		X				X				
05:48	MP13761-S2	1		X		X	X		X				X		X				X				
05:53	JC85321-4	1				X	X		X				X						X				(a)
05:59	MP13761-SD1	5		X		X	X		X				X		X				X				
06:04	ZZZZZZ	1																					
06:09	ZZZZZZ	1																					
06:14	ZZZZZZ	1																					
06:19	ZZZZZZ	1																					
06:24	ZZZZZZ	1																					
06:30	ZZZZZZ	1																					
06:35	MA46414-CCV11	1		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Element: A S A B B C C C C F P M N K S A N T V Z  
 l b s a e d a r o u e b g n i e g a l n

REPORTED ELEMENTS SUMMARY

Login Number: JC85367  
 Account: BBLNYS - Arcadis  
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SD040219M1.ICP Date Analyzed: 04/02/19 Methods: EPA 200.7, SW846 6010D  
 Analyst: ND Run ID: MA46414  
 Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Ni,K,Se,Ag,Na,Tl,V,Zn

Time	Sample Description	Element Dilution	A	S	A	B	B	C	C	C	C	F	P	M	M	N	K	S	A	N	T	V	Z
			l	b	s	a	e	d	a	r	o	u	e	b	g	n	i	e	g	a	l	n	
06:40	MA46414-CCB12	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
06:45	ZZZZZ	1																					
06:50	ZZZZZ	1																					
06:56	ZZZZZ	1																					
07:01	ZZZZZ	1																					
07:06	ZZZZZ	1																					
07:12	ZZZZZ	1																					
07:17	ZZZZZ	1																					
07:23	ZZZZZ	1																					
07:28	ZZZZZ	1																					
07:33	ZZZZZ	1																					
07:39	MA46414-CCV12	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
07:43	MA46414-CCB13	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
07:49	ZZZZZ	1																					
07:54	ZZZZZ	1																					
08:06	ZZZZZ	1																					
08:11	MA46414-CCV13	1																					
08:16	MA46414-CCB14	1																					

(a) Sample used for QC only; not part of login JC85367.

Element: A S A B B C C C C F P M M N K S A N T V Z  
 l b s a e d a r o u e b g n i e g a l n

INTERNAL STANDARD SUMMARY

Login Number: JC85367  
 Account: BBLNYS - Arcadis  
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SD040219M1.ICP Date Analyzed: 04/02/19 Methods: EPA 200.7, SW846 6010D  
 Analyst: ND Run ID: MA46414  
 Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
18:54	MA46414-STD1	4069 R	154730 R	28102 R	7498 R
19:00	MA46414-STD2	3893	144970	27778	6705
19:05	ZZZZZZ	4047	151050	28693	6990
19:10	ZZZZZZ	4137	155310	28449	7621
19:15	MA46414-ICV1	4006	149240	28379	6927
19:20	MA46414-ICB1	4088	154880	28147	7526
19:26	MA46414-ICCV1	3996	149040	28085	6897
19:36	MA46414-CCB1	4076	154170	28124	7506
19:41	MA46414-CRI1	4065	153730	28380	7387
19:46	MA46414-CRID1	4059	153860	28128	7454
19:52	MA46414-ICSA1	3695	136470	27134	6154
19:57	MA46414-ICSAB1	3700	136480	26932	6177
20:03	MA46414-HSTD1	3935	149150	27930	7317
20:08	MA46414-HSTD2	3746	139110	27143	6218
20:14	ZZZZZZ	4039	152030	27989	7573
20:19	ZZZZZZ	4049	156650	28568	7563
20:25	ZZZZZZ	4080	154240	27919	7510
20:30	MA46414-CCV1	3967	147170	27674	6854
20:35	MA46414-CCB2	4098	155090	27988	7543
20:40	MP13762-MB1	4090	157070	28419	7534
20:45	MP13762-B1	3998	151670	28385	7024
20:50	MP13762-S1	3217	118700	25556	5121 !a
20:55	MP13762-S2	3244	119800	25814	5161 !a
21:01	JC85326-1	3161	117160	25486	5070 !a
21:06	MP13762-SD1	3640	135000	26750	6073
21:11	ZZZZZZ	3191	117420	25315	5092 !a
21:17	ZZZZZZ	3272	120920	25909	5270
21:22	ZZZZZZ	3311	123720	26032	5339
21:28	MA46414-CCV2	3981	146590	27274	6867
21:32	MA46414-CCB3	4034	153110	27098	7416
21:38	ZZZZZZ	3232	119640	25296	5202 !a
21:43	ZZZZZZ	3169	117510	24973	5054 !a
21:49	ZZZZZZ	3139	116060	24954	5004 !a

INTERNAL STANDARD SUMMARY

Login Number: JC85367  
 Account: BBLNYS - Arcadis  
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SD040219M1.ICP Date Analyzed: 04/02/19 Methods: EPA 200.7, SW846 6010D  
 Analyst: ND Run ID: MA46414  
 Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
21:54	ZZZZZZ	3157	116650	24692	5047 !a
22:00	ZZZZZZ	3172	117020	24702	5073 !a
22:05	ZZZZZZ	4071	155180	27365	7497
22:10	ZZZZZZ	3195	117960	24856	5104 !a
22:16	ZZZZZZ	3184	117380	24546	5075 !a
22:21	ZZZZZZ	3275	120460	24706	5269
22:27	MA46414-CCV3	3974	148580	26276	6834
22:31	MA46414-CCB4	4084	155290	26377	7476
22:37	ZZZZZZ	3293	121910	24593	5302
22:42	ZZZZZZ	3269	121030	24321	5245 !a
22:47	ZZZZZZ	3126	115430	23649	4980 !a
22:53	ZZZZZZ	3160	116280	23799	5024 !a
22:58	ZZZZZZ	3166	116590	23821	5049 !a
23:04	ZZZZZZ	3197	117480	23397	5086 !a
23:09	ZZZZZZ	4066	155460	25919	7464
23:15	MP13758-MB1	4004	152720	25409	7352
23:20	MP13758-B1	3972	149290	25616	6948
23:25	MA46414-CCV4	3975	148510	25399	6822
23:30	MA46414-CCB5	3996	153670	25517	7323
23:35	MP13758-S1	3844	144810	25078	6545
23:40	MP13758-S2	3898	146830	25298	6628
23:45	JC85367-1F	3896	147850	25482	6792
23:50	MP13758-SD1	3993	150210	25232	7186
23:56	JC85367-2F	3856	149700	25328	6856
00:01	JC85367-3F	3927	149230	25325	6969
00:06	JC85367-4F	3842	141740	25054	6805
00:11	ZZZZZZ	4021	152690	25634	7230
00:17	ZZZZZZ	4018	152170	25518	7217
00:22	MA46414-CCV5	3924	146270	24816	6730
00:27	MA46414-CCB6	3993	150280	24649	7306
00:32	ZZZZZZ	3994	151610	25367	7195
00:37	ZZZZZZ	3907	149830	25077	7025
00:42	ZZZZZZ	3818	146160	24742	6681



INTERNAL STANDARD SUMMARY

Login Number: JC85367  
 Account: BBLNYS - Arcadis  
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SD040219M1.ICP Date Analyzed: 04/02/19 Methods: EPA 200.7, SW846 6010D  
 Analyst: ND Run ID: MA46414  
 Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
00:47	ZZZZZZ	3878	145930	24721	6796
00:52	ZZZZZZ	3707	138990	24449	6243
00:58	ZZZZZZ	3772	144830	25130	6574
01:03	ZZZZZZ	3720	142180	24515	6419
01:09	ZZZZZZ	3751	143000	24658	6524
01:14	ZZZZZZ	3708	141580	24382	6425
01:19	MA46414-CCV6	3931	146340	24750	6746
01:24	MA46414-CCB7	4089	151280	24759	7463
01:29	ZZZZZZ	4008	153570	24976	7316
01:35	ZZZZZZ	4079	155060	25371	7468
01:40	ZZZZZZ	4110	154910	25192	7494
01:45	ZZZZZZ	4131	156590	25655	7530
01:51	ZZZZZZ	4065	153920	24977	7420
01:56	ZZZZZZ	4078	154090	24960	7437
02:01	ZZZZZZ	4148	157370	25644	7579
02:07	ZZZZZZ	4145	157050	25483	7650
02:12	ZZZZZZ	4106	155180	25144	7560
02:17	ZZZZZZ	4214	146820	25525	6642
02:23	ZZZZZZ	3741	142490	24503	6473
02:28	ZZZZZZ	3733	141390	24430	6406
02:33	MA46414-CCV7	3900	145620	24215	6690
02:38	MA46414-CCB8	4002	152330	24731	7317
02:43	ZZZZZZ	3699	139790	24268	6245
02:49	ZZZZZZ	3994	151640	24756	7286
02:54	MP13751-MB1	4005	148820	24621	7336
02:59	MP13751-B1	3955	147760	24680	6896
03:04	MP13751-S1	4823	178180	30810	7218
03:09	MP13751-S2	4739	177200	30151	7137
03:14	JC85273-1	5193	191900	32427	7574
03:20	MP13751-SD1	4258	158910	25460	7300
03:25	ZZZZZZ	4338	160840	26463	7208
03:30	MA46414-CCV8	3955	147310	24582	6768
03:35	MA46414-CCB9	4086	153910	24878	7450

INTERNAL STANDARD SUMMARY

Login Number: JC85367  
 Account: BBLNYS - Arcadis  
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SD040219M1.ICP Date Analyzed: 04/02/19 Methods: EPA 200.7, SW846 6010D  
 Analyst: ND Run ID: MA46414  
 Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
03:40	ZZZZZZ	4322	160110	26324	7256
03:45	ZZZZZZ	3966	148480	25777	6238
03:51	ZZZZZZ	4251	156280	26550	6705
03:56	ZZZZZZ	4186	156580	26427	6937
04:01	ZZZZZZ	4304	158750	26282	7136
04:06	ZZZZZZ	4248	157950	25886	7252
04:11	ZZZZZZ	4280	158290	25899	7232
04:17	ZZZZZZ	4237	156240	25763	7150
04:22	ZZZZZZ	4229	154060	25717	7125
04:27	ZZZZZZ	4254	153520	25318	7184
04:32	MA46414-CCV9	3931	145580	24182	6723
04:37	MA46414-CCB10	4000	150450	24042	7299
04:42	ZZZZZZ	3845	143320	24113	6258
04:47	ZZZZZZ	4233	155640	25588	7079
04:52	ZZZZZZ	4240	157130	25629	7220
04:57	ZZZZZZ	4203	153990	25083	7159
05:02	ZZZZZZ	4099	152310	24727	7161
05:08	ZZZZZZ	4088	150660	24450	7276
05:13	ZZZZZZ	4133	152900	24995	7453
05:18	ZZZZZZ	4120	151490	24854	7592
05:23	MP13761-MB1	4054	152750	24358	7399
05:28	MP13761-B1	3904	146000	23863	6813
05:33	MA46414-CCV10	3975	146690	24094	6782
05:38	MA46414-CCB11	4090	153870	24230	7444
05:43	MP13761-S1	4187	154890	25543	6898
05:48	MP13761-S2	4228	154990	25738	6944
05:53	JC85321-4	4266	155460	25473	7112
05:59	MP13761-SD1	4140	151970	24994	7297
06:04	ZZZZZZ	4350	159340	26056	7269
06:09	ZZZZZZ	4346	159910	26116	7298
06:14	ZZZZZZ	4323	157560	25692	7285
06:19	ZZZZZZ	4315	157050	25755	7264
06:24	ZZZZZZ	4337	157420	25623	7284

INTERNAL STANDARD SUMMARY

Login Number: JC85367  
 Account: BBLNYS - Arcadis  
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SD040219M1.ICP Date Analyzed: 04/02/19 Methods: EPA 200.7, SW846 6010D  
 Analyst: ND Run ID: MA46414  
 Parameters: Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, V, Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
06:30	ZZZZZ	5013	180470	29934	7329
06:35	MA46414-CCV11	4024	148080	24092	6867
06:40	MA46414-CCB12	4128	153490	24364	7506
06:45	ZZZZZ	No results reported for the elements associated with this internal standard.			
06:50	ZZZZZ	No results reported for the elements associated with this internal standard.			
06:56	ZZZZZ	No results reported for the elements associated with this internal standard.			
07:01	ZZZZZ	No results reported for the elements associated with this internal standard.			
07:06	ZZZZZ	No results reported for the elements associated with this internal standard.			
07:12	ZZZZZ	No results reported for the elements associated with this internal standard.			
07:17	ZZZZZ	No results reported for the elements associated with this internal standard.			
07:23	ZZZZZ	5179	187740	31466	7170
07:28	ZZZZZ	No results reported for the elements associated with this internal standard.			
07:33	ZZZZZ	No results reported for the elements associated with this internal standard.			
07:39	MA46414-CCV12	3951	145920	23677	6750
07:43	MA46414-CCB13	4059	153440	24322	7397
07:49	ZZZZZ	No results reported for the elements associated with this internal standard.			
07:54	ZZZZZ	No results reported for the elements associated with this internal standard.			
08:06	ZZZZZ	No results reported for the elements associated with this internal standard.			
08:11	MA46414-CCV13	No results reported for the elements associated with this internal standard.			
08:16	MA46414-CCB14	No results reported for the elements associated with this internal standard.			

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 samples reported for the elements associated with this internal standard.

BLANK RESULTS SUMMARY  
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC85367  
Account: BBLNYS - Arcadis  
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SD040219M1.ICP Date Analyzed: 04/02/19 Methods: EPA 200.7, SW846 6010D  
QC Limits: result < RL Run ID: MA46414 Units: ug/l

Time: Sample ID:	19:20 ICB1	19:36 CCB1	20:35 CCB2	21:32 CCB3	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	14	3.10	<200	-5.30	<200	-1.90	<200	-2.80	<200				
Antimony	6.0	1.3	1.30	<6.0	0.600	<6.0	1.40	<6.0	0.600	<6.0				
Arsenic	3.0	1.5	-0.500	<3.0	-0.500	<3.0	-0.100	<3.0	-0.300	<3.0				
Barium	200	.3	0.00	<200	0.200	<200	0.00	<200	0.200	<200				
Beryllium	1.0	.1	0.00	<1.0	0.100	<1.0	0.00	<1.0	0.100	<1.0				
Bismuth	20	3.3												
Boron	100	.8												
Cadmium	3.0	.1	0.100	<3.0	0.200	<3.0	0.00	<3.0	0.00	<3.0				
Calcium	5000	2.3	1.10	<5000	2.30	<5000	0.100	<5000	0.300	<5000				
Chromium	10	.5	-0.100	<10	0.00	<10	0.00	<10	-0.100	<10				
Cobalt	50	.4	0.00	<50	0.100	<50	0.100	<50	0.200	<50				
Copper	10	.8	0.00	<10	0.100	<10	0.100	<10	-0.100	<10				
Iron	100	4.4	-1.00	<100	0.800	<100	-1.00	<100	1.10	<100				
Lead	3.0	1.1	0.00	<3.0	0.00	<3.0	-0.200	<3.0	0.00	<3.0				
Lithium	50	4.4												
Magnesium	5000	14	13.0	<5000	20.9	<5000	16.7	<5000	10.7	<5000				
Manganese	15	.1	0.00	<15	0.00	<15	0.100	<15	0.100	<15				
Molybdenum	20	.7												
Nickel	10	.3	0.200	<10	0.100	<10	-0.100	<10	0.00	<10				
Phosphorus	50	2.4												
Potassium	10000	140	-20.2	<10000	-23.7	<10000	-22.0	<10000	66.8	<10000				
Selenium	10	1.8	0.100	<10	-0.700	<10	-0.200	<10	-0.200	<10				
Silicon	200	2.2												
Silver	10	.5	0.100	<10	-0.200	<10	-0.200	<10	-0.700	<10				
Sodium	10000	34	-37.6	<10000	-52.5	<10000	-78.1	<10000	328	<10000				
Strontium	10	.1												
Sulfur	50	9.8												
Thallium	10	1.3	-0.200	<10	0.700	<10	-0.100	<10	0.400	<10				
Tin	10	.9												
Titanium	10	.3												
Tungsten	50	3.9												
Vanadium	50	.3	0.00	<50	0.00	<50	0.100	<50	0.00	<50				
Zinc	20	1.3	0.100	<20	0.200	<20	0.200	<20	0.200	<20				

BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

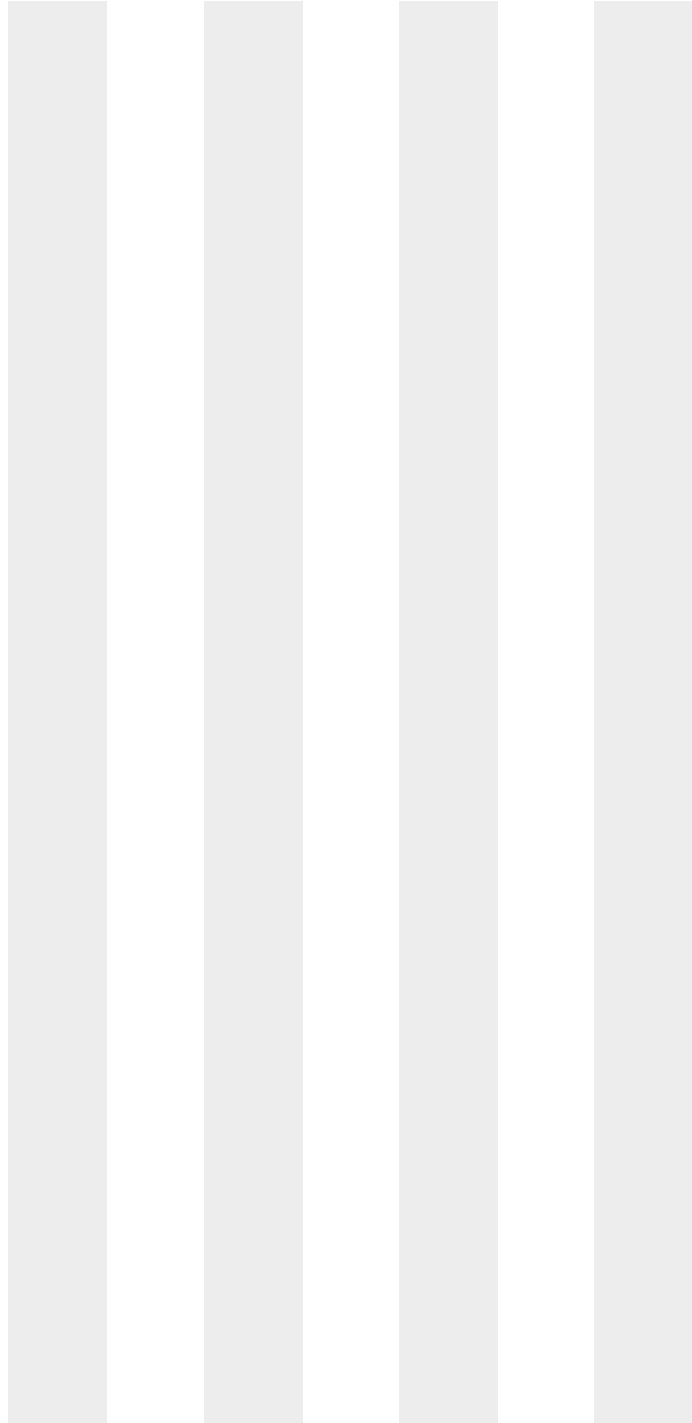
Login Number: JC85367  
 Account: BBLNYS - Arcadis  
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SD040219M1.ICP Date Analyzed: 04/02/19 Methods: EPA 200.7, SW846 6010D  
 QC Limits: result < RL Run ID: MA46414 Units: ug/l

Time:			19:20		19:36		20:35		21:32	
Sample ID:			ICB1		CCB1		CCB2		CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final

Zirconium 10 .2

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



6.2.3

6

BLANK RESULTS SUMMARY  
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC85367  
Account: BBLNYS - Arcadis  
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SD040219M1.ICP Date Analyzed: 04/02/19 Methods: EPA 200.7, SW846 6010D  
QC Limits: result < RL Run ID: MA46414 Units: ug/l

Time:			22:31			23:30			00:27
Sample ID:	RL	IDL	CCB4	final	CCB5	final	CCB6	final	
Metal	RL	IDL	raw	final	raw	final	raw	final	
Aluminum	200	14	3.40	<200	0.700	<200	-1.50	<200	
Antimony	6.0	1.3	1.20	<6.0	0.200	<6.0	0.900	<6.0	
Arsenic	3.0	1.5	-0.600	<3.0	-0.900	<3.0	0.200	<3.0	
Barium	200	.3	0.200	<200	0.300	<200	0.200	<200	
Beryllium	1.0	.1	0.100	<1.0	0.100	<1.0	0.00	<1.0	
Bismuth	20	3.3							
Boron	100	.8							
Cadmium	3.0	.1	0.200	<3.0	0.100	<3.0	0.00	<3.0	
Calcium	5000	2.3	-3.00	<5000	-4.50	<5000	-9.30	<5000	
Chromium	10	.5	0.100	<10	0.300	<10	-0.300	<10	
Cobalt	50	.4	0.200	<50	0.200	<50	0.00	<50	
Copper	10	.8	-0.300	<10	-0.300	<10	-0.400	<10	
Iron	100	4.4	0.00	<100	1.20	<100	-2.40	<100	
Lead	3.0	1.1	0.100	<3.0	0.300	<3.0	0.00	<3.0	
Lithium	50	4.4							
Magnesium	5000	14	10.6	<5000	14.7	<5000	7.60	<5000	
Manganese	15	.1	0.100	<15	0.100	<15	0.00	<15	
Molybdenum	20	.7							
Nickel	10	.3	0.00	<10	0.00	<10	-0.100	<10	
Phosphorus	50	2.4							
Potassium	10000	140	35.8	<10000	28.4	<10000	26.1	<10000	
Selenium	10	1.8	-1.30	<10	0.500	<10	-0.200	<10	
Silicon	200	2.2							
Silver	10	.5	-1.10	<10	-1.50	<10	-1.70	<10	
Sodium	10000	34	438	<10000	247	<10000	60.3	<10000	
Strontium	10	.1							
Sulfur	50	9.8							
Thallium	10	1.3	-0.100	<10	0.600	<10	0.200	<10	
Tin	10	.9							
Titanium	10	.3							
Tungsten	50	3.9							
Vanadium	50	.3	-0.200	<50	0.100	<50	-0.200	<50	
Zinc	20	1.3	0.100	<20	0.100	<20	0.00	<20	

6.2.3  
6

BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC85367  
 Account: BBLNYS - Arcadis  
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SD040219M1.ICP      Date Analyzed: 04/02/19      Methods: EPA 200.7, SW846 6010D  
 QC Limits: result < RL      Run ID: MA46414      Units: ug/l

Time:		22:31	23:30	00:27				
Sample ID:		CCB4	CCB5	CCB6				
Metal	RL	IDL	raw	final	raw	final	raw	final

Zirconium      10      .2

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



6.2.3

6

CALIBRATION CHECK STANDARDS SUMMARY  
Initial Continuing Calibration Check

Login Number: JC85367  
Account: BBLNYS - Arcadis  
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SD040219M1.ICP Date Analyzed: 04/02/19 Methods: EPA 200.7, SW846 6010D  
QC Limits: to % Recovery Run ID: MA46414 Units: ug/l

Time:	Sample ID:	ICCV	19:26 ICCV1	Results	% Rec
Metal	True				
Aluminum	40000		39100		97.8
Antimony	2000		2010		100.5
Arsenic	2000		1990		99.5
Barium	2000		2000		100.0
Beryllium	2000		2030		101.5
Bismuth					
Boron					
Cadmium	2000		2010		100.5
Calcium	40000		39800		99.5
Chromium	2000		2010		100.5
Cobalt	2000		2010		100.5
Copper	2000		1950		97.5
Iron	40000		40000		100.0
Lead	2000		2040		102.0
Lithium					
Magnesium	40000		39600		99.0
Manganese	2000		2050		102.5
Molybdenum					
Nickel	2000		2040		102.0
Phosphorus					
Potassium	40000		39000		97.5
Selenium	2000		1990		99.5
Silicon					
Silver	250		245		98.0
Sodium	40000		39300		98.3
Strontium					
Sulfur					
Thallium	2000		2070		103.5
Tin					
Titanium					
Tungsten					
Vanadium	2000		1990		99.5
Zinc	2000		2040		102.0

6.2.4

6



CALIBRATION CHECK STANDARDS SUMMARY  
Initial Continuing Calibration Check

Login Number: JC85367  
Account: BBLNYS - Arcadis  
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SD040219M1.ICP      Date Analyzed: 04/02/19      Methods: EPA 200.7, SW846 6010D  
QC Limits: to % Recovery      Run ID: MA46414      Units: ug/l

Time:	19:26		
Sample ID: ICCV	ICCV1		
Metal	True	Results	% Rec

Zirconium

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

6.2.4

6

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC85367  
Account: BBLNYS - Arcadis  
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SD040219M1.ICP      Date Analyzed: 04/02/19      Methods: EPA 200.7, SW846 6010D  
QC Limits: 95 to 105 % Recovery      Run ID: MA46414      Units: ug/l

Metal	Time:	19:15			20:30			21:28		
	Sample ID:	ICV	ICV1	CCV	CCV1	CCV	CCV2	Results	% Rec	
	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec	
Aluminum	40000	38400	96.0	40000	39800	99.5	40000	39600	99.0	
Antimony	2000	1930	96.5	2000	2030	101.5	2000	2030	101.5	
Arsenic	2000	1930	96.5	2000	2000	100.0	2000	2000	100.0	
Barium	2000	1980	99.0	2000	2040	102.0	2000	2040	102.0	
Beryllium	2000	1990	99.5	2000	2060	103.0	2000	2020	101.0	
Bismuth										
Boron										
Cadmium	2000	1970	98.5	2000	2020	101.0	2000	2030	101.5	
Calcium	40000	39200	98.0	40000	40400	101.0	40000	39800	99.5	
Chromium	2000	1950	97.5	2000	2040	102.0	2000	2050	102.5	
Cobalt	2000	2000	100.0	2000	2020	101.0	2000	2020	101.0	
Copper	2000	1910	95.5	2000	1990	99.5	2000	1990	99.5	
Iron	40000	39200	98.0	40000	40600	101.5	40000	39400	98.5	
Lead	2000	1990	99.5	2000	2050	102.5	2000	2040	102.0	
Lithium										
Magnesium	40000	38800	97.0	40000	40200	100.5	40000	39300	98.3	
Manganese	2000	2010	100.5	2000	2090	104.5	2000	2090	104.5	
Molybdenum										
Nickel	2000	1980	99.0	2000	2050	102.5	2000	2060	103.0	
Phosphorus										
Potassium	40000	38500	96.3	40000	39600	99.0	40000	39500	98.8	
Selenium	2000	1940	97.0	2000	2000	100.0	2000	2000	100.0	
Silicon										
Silver	250	242	96.8	250	249	99.6	250	247	98.8	
Sodium	40000	38800	97.0	40000	40200	100.5	40000	38500	96.3	
Strontium										
Sulfur										
Thallium	2000	2020	101.0	2000	2080	104.0	2000	2100	105.0	
Tin										
Titanium										
Tungsten										
Vanadium	2000	1960	98.0	2000	2030	101.5	2000	2040	102.0	
Zinc	2000	1980	99.0	2000	2050	102.5	2000	2040	102.0	

6.2.5  
6

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

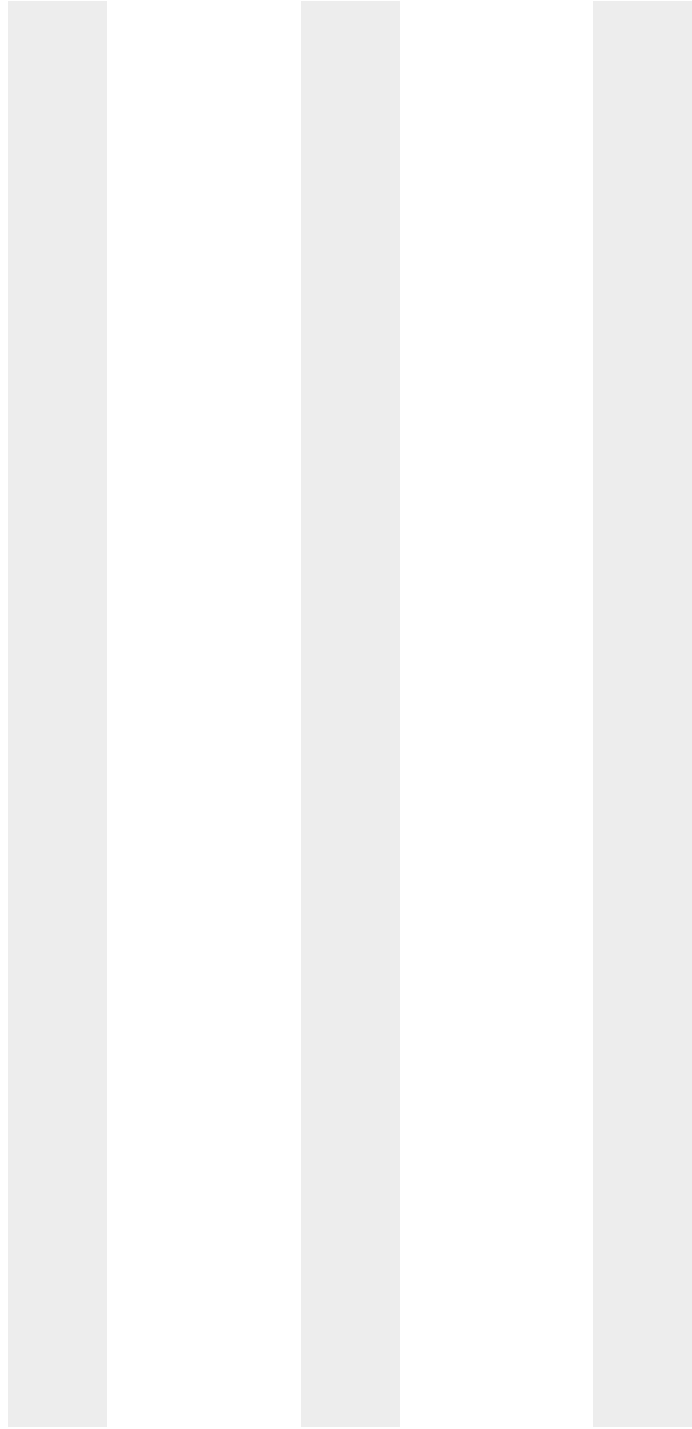
Login Number: JC85367  
Account: BBLNYS - Arcadis  
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SD040219M1.ICP      Date Analyzed: 04/02/19      Methods: EPA 200.7, SW846 6010D  
QC Limits: 95 to 105 % Recovery      Run ID: MA46414      Units: ug/l

	Time:		19:15		20:30		21:28		
Sample ID:	ICV	ICV1	CCV	CCV1	CCV	CCV2			
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec

Zirconium

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



6.2.5

6

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC85367  
Account: BBLNYS - Arcadis  
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SD040219M1.ICP      Date Analyzed: 04/02/19      Methods: EPA 200.7, SW846 6010D  
QC Limits: 95 to 105 % Recovery      Run ID: MA46414      Units: ug/l

Time:	22:27	23:25	00:22
Sample ID:	CCV	CCV3	CCV
Metal	True	Results	% Rec
Aluminum	40000	39700	99.3
Antimony	2000	2030	101.5
Arsenic	2000	1960	98.0
Barium	2000	2070	103.5
Beryllium	2000	1990	99.5
Bismuth			
Boron			
Cadmium	2000	2010	100.5
Calcium	40000	39100	97.8
Chromium	2000	2030	101.5
Cobalt	2000	2000	100.0
Copper	2000	1940	97.0
Iron	40000	38000	95.0
Lead	2000	2010	100.5
Lithium			
Magnesium	40000	38200	95.5
Manganese	2000	2050	102.5
Molybdenum			
Nickel	2000	2060	103.0
Phosphorus			
Potassium	40000	39900	99.8
Selenium	2000	1960	98.0
Silicon			
Silver	250	241	96.4
Sodium	40000	38900	97.3
Strontium			
Sulfur			
Thallium	2000	2070	103.5
Tin			
Titanium			
Tungsten			
Vanadium	2000	2000	100.0
Zinc	2000	2030	101.5

6.2.5

6

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC85367  
Account: BBLNYS - Arcadis  
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SD040219M1.ICP      Date Analyzed: 04/02/19      Methods: EPA 200.7, SW846 6010D  
QC Limits: 95 to 105 % Recovery      Run ID: MA46414      Units: ug/l

	Time:								
	Sample ID:	CCV	22:27 CCV3	CCV	23:25 CCV4	CCV	00:22 CCV5		
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec

Zirconium

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



6.2.5

6

HIGH STANDARD CHECK SUMMARY

Login Number: JC85367  
 Account: BBLNYS - Arcadis  
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SD040219M1.ICP Date Analyzed: 04/02/19 Methods: EPA 200.7, SW846 6010D  
 QC Limits: 90 to 110 % Recovery Run ID: MA46414 Units: ug/l

Metal	Time: 20:03			Time: 20:08		
	Sample ID: HSTD	HSTD1	Results % Rec	HSTD	HSTD2	Results % Rec
Aluminum				300000	301000	100.3
Antimony	8000	8310	103.9			
Arsenic	8000	8130	101.6			
Barium	8000	8000	100.0			
Beryllium	8000	8230	102.9			
Bismuth						
Boron						
Cadmium	8000	8000	100.0			
Calcium				200000	193000	96.5
Chromium	8000	8390	104.9			
Cobalt	8000	8080	101.0			
Copper	8000	7940	99.3			
Iron				200000	195000	97.5
Lead	8000	8170	102.1			
Lithium						
Magnesium				300000	309000	103.0
Manganese	8000	8190	102.4			
Molybdenum						
Nickel	8000	8100	101.3			
Phosphorus						
Potassium				200000	201000	100.5
Selenium	8000	8210	102.6			
Silicon						
Silver	625	587	93.9			
Sodium				200000	204000	102.0
Strontium						
Sulfur						
Thallium	8000	8350	104.4			
Tin						
Titanium						
Tungsten						
Vanadium	8000	8270	103.4			
Zinc	8000	8490	106.1			

6.2.6  
6

HIGH STANDARD CHECK SUMMARY

Login Number: JC85367  
 Account: BBLNYS - Arcadis  
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SD040219M1.ICP Date Analyzed: 04/02/19 Methods: EPA 200.7, SW846 6010D  
 QC Limits: 90 to 110 % Recovery Run ID: MA46414 Units: ug/l

	Time:	20:03		20:08	
Sample ID:	HSTD	HSTD1	HSTD	HSTD2	
Metal	True	Results	% Rec	True	Results

Zirconium

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



6.2.6  
6

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC85367  
 Account: BBLNYS - Arcadis  
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SD040219M1.ICP Date Analyzed: 04/02/19 Methods: EPA 200.7, SW846 6010D  
 QC Limits: CRI 80-120% CRIA 80-120% Run ID: MA46414 Units: ug/l

Time:				19:41		19:46	
Sample ID:	CRI	CRIA	CRID	CRID1	% Rec	CRID1	% Rec
Metal	True	True	True	Results		Results	% Rec
Aluminum	200	500	100	196	98.0	98.7	98.7
Antimony	6.0	20	3.0	7.10	118.3	1.10U	0.0* (a)
Arsenic	8.0	20	3.0	7.70	96.3	2.50	83.3
Barium	200		4.0	201	100.5	4.10	102.5
Beryllium	2.0		1.0	2.00	100.0	1.00	100.0
Bismuth	20						
Boron	100		10				
Cadmium	3.0		1.0	3.00	100.0	1.00	100.0
Calcium	5000	2000	1000	5010	100.2	1010	101.0
Chromium	10		2.0	9.80	98.0	1.60	80.0
Cobalt	50		3.0	48.8	97.6	3.10	103.3
Copper	10		2.0	9.10	91.0	-0.100U	0.0* (a)
Iron	100	500		100	100.0		
Lead	3.0	20	2.5	3.50	116.7	0.100U	0.0* (a)
Lithium	50						
Magnesium	5000	2000	100	5110	102.2	120	120.0
Manganese	15		3.0	15.6	104.0	3.10	103.3
Molybdenum	20						
Nickel	10		4.0	10.0	100.0	4.10	102.5
Phosphorus	50						
Potassium	5000		2000	4810	96.2	1910	95.5
Selenium	10	20	5.0	8.40	84.0	4.50	90.0
Silicon	200						
Silver	5.0		2.0	4.10	82.0	-0.100U	0.0* (a)
Sodium	5000		1000	4870	97.4	935	93.5
Strontium	10						
Sulfur	50						
Thallium	10		2.0	10.9	109.0	2.50	125.0* (a)
Tin	10						
Titanium	10						
Tungsten	50						
Vanadium	50		2.0	50.1	100.2	1.90	95.0
Zinc	20		10	20.7	103.5	10.3	103.0

6.2.7  
6



LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC85367  
 Account: BBLNYS - Arcadis  
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SD040219M1.ICP Date Analyzed: 04/02/19 Methods: EPA 200.7, SW846 6010D  
 QC Limits: CRI 80-120% CRIA 80-120% Run ID: MA46414 Units: ug/l

Time:				19:41			19:46
Sample ID:	CRI	CRIA	CRID	CR11			CR1D1
Metal	True	True	True	Results	% Rec	Results	% Rec

Zirconium 10

- (\*) Outside of QC limits
- (anr) Analyte not requested
- (a) No samples reported for this element at this RL in the area bracketed by this QC.

6.2.7  
6

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

Login Number: JC85367  
Account: BBLNYS - Arcadis  
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SD040219M1.ICP      Date Analyzed: 04/02/19      Methods: EPA 200.7, SW846 6010D  
QC Limits: 80 to 120 % Recovery      Run ID: MA46414      Units: ug/l

Time:			19:52			19:57
Sample ID:	ICSA	ICSAB	ICSAL	% Rec	ICSAB1	% Rec
Metal	True	True	Results		Results	
Aluminum	500000	500000	496000	99.2	507000	101.4
Antimony		1000	-0.700		1070	107.0
Arsenic		1000	1.10		1060	106.0
Barium		500	1.00		513	102.6
Beryllium		500	0.00		499	99.8
Bismuth		500	-5.50		488	97.6
Boron		500	1.20		487	97.4
Cadmium		1000	0.100		1020	102.0
Calcium	400000	400000	381000	95.3	380000	95.0
Chromium		500	1.50		476	95.2
Cobalt		500	0.600		475	95.0
Copper		500	-0.800		512	102.4
Iron	200000	200000	192000	96.0	186000	93.0
Lead		1000	2.50		961	96.1
Lithium		500	-0.100		530	106.0
Magnesium	500000	500000	513000	102.6	518000	103.6
Manganese		500	-2.30		498	99.6
Molybdenum		500	-2.40		483	96.6
Nickel		1000	-0.300		965	96.5
Phosphorus		500	15.0		515	103.0
Potassium			15.1		22.2	
Selenium		1000	1.60		1050	105.0
Silicon		500	-2.10		518	103.6
Silver		1000	2.60		1080	108.0
Sodium			-23.4		-17.4	
Strontium		500	-7.00		564	112.8
Sulfur		500	-26.8		453	90.6
Thallium		1000	2.50		981	98.1
Tin		500	-2.10		459	91.8
Titanium		500	-0.500		494	98.8
Tungsten		500	2.00		471	94.2
Vanadium		500	1.10		492	98.4
Zinc		1000	-0.400		935	93.5

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

Login Number: JC85367  
 Account: BBLNYS - Arcadis  
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SD040219M1.ICP Date Analyzed: 04/02/19 Methods: EPA 200.7, SW846 6010D  
 QC Limits: 80 to 120 % Recovery Run ID: MA46414 Units: ug/l

Time:		19:52		19:57		
Sample ID:	ICSAB	ICSAB	ICSAB1	ICSAB1	ICSAB1	
Metal	True	True	Results	% Rec	Results	% Rec

Zirconium 500 -1.00 524 104.8

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

6.2.8

6

SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC85367  
 Account: BBLNYS - Arcadis  
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SE040319M1.ICP      Date Analyzed: 04/03/19      Methods: EPA 200.7, SW846 6010D  
 Analyst: ND      Run ID: MA46419  
 Parameters: Mn

Time	Sample Description	Dilution Factor	PS Recov	Comments
10:02	MA46419-STD1	1		STDA
10:07	MA46419-STD2	1		STDB
10:12	ZZZZZZ	1		
10:17	ZZZZZZ	1		
10:23	ZZZZZZ	1		
10:28	MA46419-ICV1	1		
10:33	MA46419-ICB1	1		
10:40	MA46419-ICCV1	1		
10:48	MA46419-CCB1	1		
10:52	MA46419-CRI1	1		
10:58	MA46419-CRID1	1		
11:03	MA46419-ICSA1	1		
11:08	MA46419-ICSAB1	1		
11:13	MA46419-HSTD1	1		
11:19	MA46419-HSTD2	1		
11:24	ZZZZZZ	1		
11:30	ZZZZZZ	1		
11:35	ZZZZZZ	1		
11:41	MA46419-CCV1	1		
11:46	MA46419-CCB2	1		
11:51	MP13671-MB1	1		
11:57	MP13671-MB2	1		
12:02	MP13671-B1	1		
12:07	MP13671-B2	1		
12:12	MP13671-S1	1		
12:17	MP13671-S2	1		
12:22	JC84498-93	1		(sample used for QC only; not part of login JC85367)
12:27	MP13671-SD1	5		
12:33	ZZZZZZ	1		
12:38	MA46419-CCV2	1		
12:43	MA46419-CCB3	1		
12:49	ZZZZZZ	1		
12:54	ZZZZZZ	1		

SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC85367  
Account: BBLNYS - Arcadis  
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SE040319M1.ICP Date Analyzed: 04/03/19 Methods: EPA 200.7, SW846 6010D  
Analyst: ND Run ID: MA46419  
Parameters: Mn

Time	Sample Description	Dilution Factor	PS Recov	Comments
12:59	ZZZZZZ	1		
13:05	ZZZZZZ	1		
13:10	ZZZZZZ	1		
13:15	MP13765-MB1	1		
13:21	MP13765-B1	1		
13:26	ZZZZZZ	1		
13:31	MA46419-CCV3	1		
13:37	MA46419-CCB4	1		
13:42	MP13765-S1	1		
13:47	MP13765-S2	1		
13:52	JC85513-5F	1		(sample used for QC only; not part of login JC85367)
13:57	MP13765-SD1	5		
14:03	MP13751-MB1	1		
14:08	MP13751-B1	1		
14:13	ZZZZZZ	2		
14:18	ZZZZZZ	2		
14:23	ZZZZZZ	2		
14:28	MA46419-CCV4	1		
14:41	MA46419-CCB5	1		
14:47	ZZZZZZ	10		
14:52	MP13751-PS1	1		
14:57	ZZZZZZ	2		
15:02	MP13751-S1	5		needs post spike for Sb on dilution
15:07	MP13751-S2	5		
15:12	JC85273-1	5		(sample used for QC only; not part of login JC85367)
15:18	MP13751-SD1	25		
15:23	ZZZZZZ	1		
15:29	ZZZZZZ	5		
15:34	MA46419-CCV5	1		
15:39	MA46419-CCB6	1		
15:44	ZZZZZZ	1		
15:53	ZZZZZZ	1		
15:59	ZZZZZZ	2		

SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC85367  
Account: BBLNYS - Arcadis  
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SE040319M1.ICP      Date Analyzed: 04/03/19      Methods: EPA 200.7, SW846 6010D  
Analyst: ND      Run ID: MA46419  
Parameters: Mn

Time	Sample Description	Dilution Factor	PS Recov	Comments
16:04	ZZZZZZ	1		
16:09	ZZZZZZ	2		
16:14	ZZZZZZ	1		
16:19	ZZZZZZ	1		
16:25	ZZZZZZ	1		
16:30	ZZZZZZ	2		
16:35	MA46419-CCV6	1		
16:40	MA46419-CCB7	1		
16:46	MA46419-ICSA2	1		
16:51	MA46419-ICSAB2	1		
16:56	ZZZZZZ	2		
17:01	ZZZZZZ	1		
17:06	ZZZZZZ	1		
17:12	MP13761-S1	1		
17:17	MP13761-S2	1		
17:22	JC85321-4	1		(sample used for QC only; not part of login JC85367)
17:27	MP13761-SD1	5		
17:32	MA46419-CCV7	1		
17:37	MA46419-CCB8	1		
17:43	ZZZZZZ	1		
17:48	ZZZZZZ	1		
17:53	ZZZZZZ	1		
17:59	MP13693-B1	1		
18:04	MP13693-MB1	1		
18:09	MP13693-B2	1		
18:14	JC85075-1	1		(sample used for QC only; not part of login JC85367)
18:19	MP13693-SD1	5		
18:25	ZZZZZZ	1		
18:30	MA46419-CCV8	1		
18:35	MA46419-CCB9	1		
18:41	ZZZZZZ	1		
18:46	ZZZZZZ	1		
18:52	ZZZZZZ	1		

SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC85367  
Account: BBLNYS - Arcadis  
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SE040319M1.ICP      Date Analyzed: 04/03/19      Methods: EPA 200.7, SW846 6010D  
Analyst: ND      Run ID: MA46419  
Parameters: Mn

Time	Sample Description	Dilution Factor	PS Recov	Comments
18:57	ZZZZZZ	1		
19:02	ZZZZZZ	1		
19:08	ZZZZZZ	1		
19:13	ZZZZZZ	1		
19:19	ZZZZZZ	1		
19:24	ZZZZZZ	1		
19:29	MA46419-CCV9	1		
19:34	MA46419-CCB10	1		
19:40	ZZZZZZ	1		
19:45	ZZZZZZ	1		
19:51	ZZZZZZ	1		
19:56	ZZZZZZ	1		
20:01	ZZZZZZ	1		
20:07	ZZZZZZ	1		
20:12	ZZZZZZ	1		
20:17	ZZZZZZ	1		
20:23	ZZZZZZ	1		
20:28	MA46419-CCV10	1		
20:33	MA46419-CCB11	1		
20:39	ZZZZZZ	1		
20:44	ZZZZZZ	1		
20:49	ZZZZZZ	1		
20:55	ZZZZZZ	1		
21:00	ZZZZZZ	1		
21:06	ZZZZZZ	1		
21:11	ZZZZZZ	1		
21:17	ZZZZZZ	1		
21:22	ZZZZZZ	1		
21:28	ZZZZZZ	1		
21:33	ZZZZZZ	1		
21:39	ZZZZZZ	1		
21:44	MA46419-CCV11	1		
21:49	MA46419-CCB12	1		

SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC85367  
Account: BBLNYS - Arcadis  
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SE040319M1.ICP      Date Analyzed: 04/03/19      Methods: EPA 200.7, SW846 6010D  
Analyst: ND      Run ID: MA46419  
Parameters: Mn

Time	Sample Description	Dilution Factor	PS Recov	Comments
21:55	ZZZZZZ	1		
22:00	ZZZZZZ	1		
22:05	ZZZZZZ	1		
22:11	ZZZZZZ	1		
22:16	ZZZZZZ	1		
22:22	ZZZZZZ	1		
22:27	ZZZZZZ	1		
22:32	ZZZZZZ	1		
22:38	ZZZZZZ	1		
22:43	ZZZZZZ	1		
22:48	MA46419-CCV12	1		
22:53	MA46419-CCB13	1		
22:59	ZZZZZZ	1		
23:04	ZZZZZZ	1		
23:10	JC85367-4F	1		
----->	Last reportable sample/prep for job JC85367			
23:15	ZZZZZZ	1		
23:21	MP13672-SD1	5		
23:26	ZZZZZZ	2		
23:31	ZZZZZZ	2		
23:37	ZZZZZZ	2		
23:42	ZZZZZZ	2		
23:47	ZZZZZZ	2		
23:52	MA46419-CCV13	1		
23:57	MA46419-CCB14	1		
----->	Last reportable CCB for job JC85367			
00:03	ZZZZZZ	2		
00:08	ZZZZZZ	5		
00:13	ZZZZZZ	2		
00:18	ZZZZZZ	2		
00:24	ZZZZZZ	2		
00:29	ZZZZZZ	2		
00:34	ZZZZZZ	2		
00:39	ZZZZZZ	5		
00:45	ZZZZZZ	5		



SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC85367  
Account: BBLNYS - Arcadis  
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SE040319M1.ICP      Date Analyzed: 04/03/19      Methods: EPA 200.7, SW846 6010D  
Analyst: ND      Run ID: MA46419  
Parameters: Mn

Time	Sample Description	Dilution Factor	PS Recov	Comments
00:51	ZZZZZZ	5		
00:56	MA46419-CCV14	1		
01:01	MA46419-CCB15	1		
01:07	ZZZZZZ	5		
01:12	ZZZZZZ	5		
01:18	MP13782-B1	1		
01:23	MP13782-MB1	1		
01:28	MP13782-S1	1		needs post spike for Sb
01:33	MP13782-S2	1		
01:38	JC85111-20A	1		(sample used for QC only; not part of login JC85367)
01:43	MP13782-SD1	5		
01:49	ZZZZZZ	1		
01:54	ZZZZZZ	1		
01:59	MA46419-CCV15	1		
02:04	MA46419-CCB16	1		
02:10	ZZZZZZ	1		
02:15	ZZZZZZ	1		
02:20	ZZZZZZ	1		
02:25	ZZZZZZ	1		
02:30	ZZZZZZ	1		
02:36	ZZZZZZ	1		
02:41	ZZZZZZ	1		
02:46	ZZZZZZ	1		
02:51	ZZZZZZ	1		
02:56	ZZZZZZ	1		
03:02	MA46419-CCV16	1		
03:07	MA46419-CCB17	1		
03:12	ZZZZZZ	1		
03:18	ZZZZZZ	1		
03:23	ZZZZZZ	1		
03:28	ZZZZZZ	1		
03:33	ZZZZZZ	1		
03:39	ZZZZZZ	1		

SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC85367  
Account: BBLNYS - Arcadis  
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SE040319M1.ICP Date Analyzed: 04/03/19 Methods: EPA 200.7, SW846 6010D  
Analyst: ND Run ID: MA46419  
Parameters: Mn

Time	Sample Description	Dilution Factor	PS Recov	Comments
03:44	ZZZZZZ	1		
03:49	MP13755-B1	1		high rsd
03:54	MP13755-MB1	1		
04:00	MA46419-CCV17	1		
04:05	MA46419-CCB18	1		
04:10	MP13755-S1	1		Mg high
04:15	MP13755-S2	1		Mg high
04:21	JC85432-1	1		(sample used for QC only; not part of login JC85367)
04:26	MP13755-SD1	5		Mg high
04:32	ZZZZZZ	1		
04:37	ZZZZZZ	1		
04:43	ZZZZZZ	1		
04:48	ZZZZZZ	1		
04:54	ZZZZZZ	1		
04:59	ZZZZZZ	1		
05:05	MA46419-CCV18	1		
05:10	MA46419-CCB19	1		
05:16	ZZZZZZ	1		
05:21	ZZZZZZ	1		
05:27	ZZZZZZ	1		
05:33	ZZZZZZ	1		
05:38	ZZZZZZ	1		
05:44	ZZZZZZ	1		
05:49	ZZZZZZ	1		
05:55	ZZZZZZ	1		
06:01	ZZZZZZ	1		
06:06	MA46419-CCV19	1		
06:11	MA46419-CCB20	1		
06:17	ZZZZZZ	1		
06:22	ZZZZZZ	1		
06:28	ZZZZZZ	1		
06:33	ZZZZZZ	5		
06:39	MA46419-CCV20	1		

SGS Instrument Runlog  
Inorganics Analyses

Login Number: JC85367  
Account: BBLNYS - Arcadis  
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SE040319M1.ICP      Date Analyzed: 04/03/19      Methods: EPA 200.7, SW846 6010D  
Analyst: ND      Run ID: MA46419  
Parameters: Mn

Time	Sample Description	Dilution Factor	PS Recov	Comments
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06:44 MA46419-CCB21 1

Refer to raw data for calibration curve and standards.

REPORTED ELEMENTS SUMMARY

Login Number: JC85367  
 Account: BBLNYS - Arcadis  
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SE040319M1.ICP Date Analyzed: 04/03/19 Methods: EPA 200.7, SW846 6010D  
 Analyst: ND Run ID: MA46419  
 Parameters: Mn

Time	Sample Description	Element: M Dilution n
10:12	ZZZZZZ	1
10:17	ZZZZZZ	1
10:23	ZZZZZZ	1
10:28	MA46419-ICV1	1 X
10:33	MA46419-ICB1	1 X
10:40	MA46419-ICCV1	1 X
10:48	MA46419-CCB1	1 X
10:52	MA46419-CRI1	1 X
10:58	MA46419-CRID1	1 X
11:03	MA46419-ICSA1	1 X
11:08	MA46419-ICSAB1	1 X
11:13	MA46419-HSTD1	1 X
11:19	MA46419-HSTD2	1 X
11:24	ZZZZZZ	1
11:30	ZZZZZZ	1
11:35	ZZZZZZ	1
11:41	MA46419-CCV1	1 X
11:46	MA46419-CCB2	1 X
11:51	MP13671-MB1	1
11:57	MP13671-MB2	1
12:02	MP13671-B1	1
12:07	MP13671-B2	1
12:12	MP13671-S1	1
12:17	MP13671-S2	1
12:22	JC84498-93	1 (a)
12:27	MP13671-SD1	5
12:33	ZZZZZZ	1
12:38	MA46419-CCV2	1 X
12:43	MA46419-CCB3	1 X
12:49	ZZZZZZ	1
12:54	ZZZZZZ	1
12:59	ZZZZZZ	1
13:05	ZZZZZZ	1

Element: M  
n

REPORTED ELEMENTS SUMMARY

Login Number: JC85367  
 Account: BBLNYS - Arcadis  
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SE040319M1.ICP Date Analyzed: 04/03/19 Methods: EPA 200.7, SW846 6010D  
 Analyst: ND Run ID: MA46419  
 Parameters: Mn

Time	Sample Description	Element: M Dilution n
13:10	ZZZZZZ	1
13:15	MP13765-MB1	1 X
13:21	MP13765-B1	1 X
13:26	ZZZZZZ	1
13:31	MA46419-CCV3	1 X
13:37	MA46419-CCB4	1 X
13:42	MP13765-S1	1 X
13:47	MP13765-S2	1 X
13:52	JC85513-5F	1 (a)
13:57	MP13765-SD1	5 X
14:03	MP13751-MB1	1
14:08	MP13751-B1	1
14:13	ZZZZZZ	2
14:18	ZZZZZZ	2
14:23	ZZZZZZ	2
14:28	MA46419-CCV4	1 X
14:41	MA46419-CCB5	1 X
14:47	ZZZZZZ	10
14:52	MP13751-PS1	1
14:57	ZZZZZZ	2
15:02	MP13751-S1	5 X
15:07	MP13751-S2	5 X
15:12	JC85273-1	5 (a)
15:18	MP13751-SD1	25 X
15:23	ZZZZZZ	1
15:29	ZZZZZZ	5
15:34	MA46419-CCV5	1 X
15:39	MA46419-CCB6	1 X
15:44	ZZZZZZ	1
15:53	ZZZZZZ	1
15:59	ZZZZZZ	2
16:04	ZZZZZZ	1
16:09	ZZZZZZ	2

Element: M  
n

REPORTED ELEMENTS SUMMARY

Login Number: JC85367  
 Account: BBLNYS - Arcadis  
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SE040319M1.ICP Date Analyzed: 04/03/19 Methods: EPA 200.7, SW846 6010D  
 Analyst: ND Run ID: MA46419  
 Parameters: Mn

Time	Sample Description	Element: M Dilution n
16:14	ZZZZZZ	1
16:19	ZZZZZZ	1
16:25	ZZZZZZ	1
16:30	ZZZZZZ	2
16:35	MA46419-CCV6	1 X
16:40	MA46419-CCB7	1 X
16:46	MA46419-ICSA2	1 X
16:51	MA46419-ICSAB2	1 X
16:56	ZZZZZZ	2
17:01	ZZZZZZ	1
17:06	ZZZZZZ	1
17:12	MP13761-S1	1
17:17	MP13761-S2	1
17:22	JC85321-4	1 (a)
17:27	MP13761-SD1	5
17:32	MA46419-CCV7	1 X
17:37	MA46419-CCB8	1 X
17:43	ZZZZZZ	1
17:48	ZZZZZZ	1
17:53	ZZZZZZ	1
17:59	MP13693-B1	1
18:04	MP13693-MB1	1
18:09	MP13693-B2	1
18:14	JC85075-1	1 (a)
18:19	MP13693-SD1	5
18:25	ZZZZZZ	1
18:30	MA46419-CCV8	1 X
18:35	MA46419-CCB9	1 X
18:41	ZZZZZZ	1
18:46	ZZZZZZ	1
18:52	ZZZZZZ	1
18:57	ZZZZZZ	1
19:02	ZZZZZZ	1

Element: M  
n

REPORTED ELEMENTS SUMMARY

Login Number: JC85367  
 Account: BBLNYS - Arcadis  
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SE040319M1.ICP Date Analyzed: 04/03/19 Methods: EPA 200.7, SW846 6010D  
 Analyst: ND Run ID: MA46419  
 Parameters: Mn

Time	Sample Description	Element: M Dilution n
19:08	ZZZZZZ	1
19:13	ZZZZZZ	1
19:19	ZZZZZZ	1
19:24	ZZZZZZ	1
19:29	MA46419-CCV9	1 X
19:34	MA46419-CCB10	1 X
19:40	ZZZZZZ	1
19:45	ZZZZZZ	1
19:51	ZZZZZZ	1
19:56	ZZZZZZ	1
20:01	ZZZZZZ	1
20:07	ZZZZZZ	1
20:12	ZZZZZZ	1
20:17	ZZZZZZ	1
20:23	ZZZZZZ	1
20:28	MA46419-CCV10	1 X
20:33	MA46419-CCB11	1 X
20:39	ZZZZZZ	1
20:44	ZZZZZZ	1
20:49	ZZZZZZ	1
20:55	ZZZZZZ	1
21:00	ZZZZZZ	1
21:06	ZZZZZZ	1
21:11	ZZZZZZ	1
21:17	ZZZZZZ	1
21:22	ZZZZZZ	1
21:28	ZZZZZZ	1
21:33	ZZZZZZ	1
21:39	ZZZZZZ	1
21:44	MA46419-CCV11	1 X
21:49	MA46419-CCB12	1 X
21:55	ZZZZZZ	1
22:00	ZZZZZZ	1

Element: M  
n

REPORTED ELEMENTS SUMMARY

Login Number: JC85367  
 Account: BBLNYS - Arcadis  
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SE040319M1.ICP Date Analyzed: 04/03/19 Methods: EPA 200.7, SW846 6010D  
 Analyst: ND Run ID: MA46419  
 Parameters: Mn

Time	Sample Description	Element: M Dilution n
22:05	ZZZZZZ	1
22:11	ZZZZZZ	1
22:16	ZZZZZZ	1
22:22	ZZZZZZ	1
22:27	ZZZZZZ	1
22:32	ZZZZZZ	1
22:38	ZZZZZZ	1
22:43	ZZZZZZ	1
22:48	MA46419-CCV12	1 X
22:53	MA46419-CCB13	1 X
22:59	ZZZZZZ	1
23:04	ZZZZZZ	1
23:10	JC85367-4F	1 X
23:15	ZZZZZZ	1
23:21	MP13672-SD1	5
23:26	ZZZZZZ	2
23:31	ZZZZZZ	2
23:37	ZZZZZZ	2
23:42	ZZZZZZ	2
23:47	ZZZZZZ	2
23:52	MA46419-CCV13	1 X
23:57	MA46419-CCB14	1 X
00:03	ZZZZZZ	2
00:08	ZZZZZZ	5
00:13	ZZZZZZ	2
00:18	ZZZZZZ	2
00:24	ZZZZZZ	2
00:29	ZZZZZZ	2
00:34	ZZZZZZ	2
00:39	ZZZZZZ	5
00:45	ZZZZZZ	5
00:51	ZZZZZZ	5
00:56	MA46419-CCV14	1 X

Element: M  
n



REPORTED ELEMENTS SUMMARY

Login Number: JC85367  
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 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SE040319M1.ICP Date Analyzed: 04/03/19 Methods: EPA 200.7, SW846 6010D  
 Analyst: ND Run ID: MA46419  
 Parameters: Mn

Time	Sample Description	Element: M Dilution n
01:01	MA46419-CCB15	1 X
01:07	ZZZZZZ	5
01:12	ZZZZZZ	5
01:18	MP13782-B1	1
01:23	MP13782-MB1	1
01:28	MP13782-S1	1
01:33	MP13782-S2	1
01:38	JC85111-20A	1 (a)
01:43	MP13782-SD1	5
01:49	ZZZZZZ	1
01:54	ZZZZZZ	1
01:59	MA46419-CCV15	1 X
02:04	MA46419-CCB16	1 X
02:10	ZZZZZZ	1
02:15	ZZZZZZ	1
02:20	ZZZZZZ	1
02:25	ZZZZZZ	1
02:30	ZZZZZZ	1
02:36	ZZZZZZ	1
02:41	ZZZZZZ	1
02:46	ZZZZZZ	1
02:51	ZZZZZZ	1
02:56	ZZZZZZ	1
03:02	MA46419-CCV16	1 X
03:07	MA46419-CCB17	1 X
03:12	ZZZZZZ	1
03:18	ZZZZZZ	1
03:23	ZZZZZZ	1
03:28	ZZZZZZ	1
03:33	ZZZZZZ	1
03:39	ZZZZZZ	1
03:44	ZZZZZZ	1
03:49	MP13755-B1	1

Element: M  
n

REPORTED ELEMENTS SUMMARY

Login Number: JC85367  
 Account: BBLNYS - Arcadis  
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SE040319M1.ICP Date Analyzed: 04/03/19 Methods: EPA 200.7, SW846 6010D  
 Analyst: ND Run ID: MA46419  
 Parameters: Mn

Time	Sample Description	Element: M Dilution n
03:54	MP13755-MB1	1
04:00	MA46419-CCV17	1 X
04:05	MA46419-CCB18	1 X
04:10	MP13755-S1	1
04:15	MP13755-S2	1
04:21	JC85432-1	1 (a)
04:26	MP13755-SD1	5
04:32	ZZZZZZ	1
04:37	ZZZZZZ	1
04:43	ZZZZZZ	1
04:48	ZZZZZZ	1
04:54	ZZZZZZ	1
04:59	ZZZZZZ	1
05:05	MA46419-CCV18	1 X
05:10	MA46419-CCB19	1 X
05:16	ZZZZZZ	1
05:21	ZZZZZZ	1
05:27	ZZZZZZ	1
05:33	ZZZZZZ	1
05:38	ZZZZZZ	1
05:44	ZZZZZZ	1
05:49	ZZZZZZ	1
05:55	ZZZZZZ	1
06:01	ZZZZZZ	1
06:06	MA46419-CCV19	1 X
06:11	MA46419-CCB20	1 X
06:17	ZZZZZZ	1
06:22	ZZZZZZ	1
06:28	ZZZZZZ	1
06:33	ZZZZZZ	5
06:39	MA46419-CCV20	1 X
06:44	MA46419-CCB21	1 X

(a) Sample used for QC only; not part of login JC85367.

Element: M  
n

INTERNAL STANDARD SUMMARY

Login Number: JC85367  
 Account: BBLNYS - Arcadis  
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SE040319M1.ICP Date Analyzed: 04/03/19 Methods: EPA 200.7, SW846 6010D  
 Analyst: ND Run ID: MA46419  
 Parameters: Mn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
10:02	MA46419-STD1	4424 R	108780 R	10780 R	9738 R
10:07	MA46419-STD2	4162	101170	10171	8391
10:12	ZZZZZZ	4256	103550	10201	8688
10:17	ZZZZZZ	4422	109350	10317	9736
10:23	ZZZZZZ	4396	110690	10363	9692
10:28	MA46419-ICV1	4266	103820	10297	8722
10:33	MA46419-ICB1	4417	109240	10349	9730
10:40	MA46419-ICCV1	4292	103780	10327	8760
10:48	MA46419-CCB1	4399	109480	10401	9690
10:52	MA46419-CRI1	4317	109700	10230	9382
10:58	MA46419-CRID1	4388	109070	10271	9633
11:03	MA46419-ICSA1	3920	95095	9920	7621
11:08	MA46419-ICSAB1	3919	94942	9894	7626
11:13	MA46419-HSTD1	4335	106410	10389	9395
11:19	MA46419-HSTD2	3929	96003	9799	7648
11:24	ZZZZZZ	4325	107710	9961	9537
11:30	ZZZZZZ	4325	108680	10221	9671
11:35	ZZZZZZ	4399	110000	10309	9658
11:41	MA46419-CCV1	4256	103960	10113	8685
11:46	MA46419-CCB2	4431	109760	10241	9743
11:51	MP13671-MB1	4418	110250	10504	9732
11:57	MP13671-MB2	4394	110920	10572	9674
12:02	MP13671-B1	4293	106490	10416	8899
12:07	MP13671-B2	4330	105590	10395	8978
12:12	MP13671-S1	4062	101390	10175	8269
12:17	MP13671-S2	4057	102340	10299	8253
12:22	JC84498-93	4079	102620	10241	8485
12:27	MP13671-SD1	4308	107080	10320	9245
12:33	ZZZZZZ	4204	104710	10329	8740
12:38	MA46419-CCV2	4291	104770	10135	8736
12:43	MA46419-CCB3	4415	110410	10277	9701
12:49	ZZZZZZ	4285	107220	10332	9106
12:54	ZZZZZZ	4250	107520	10432	8973

INTERNAL STANDARD SUMMARY

Login Number: JC85367  
 Account: BBLNYS - Arcadis  
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SE040319M1.ICP Date Analyzed: 04/03/19 Methods: EPA 200.7, SW846 6010D  
 Analyst: ND Run ID: MA46419  
 Parameters: Mn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
12:59	ZZZZZZ	4244	106790	10423	9029
13:05	ZZZZZZ	4055	102190	10201	8365
13:10	ZZZZZZ	4181	104570	10292	8739
13:15	MP13765-MB1	4426	111420	10492	9743
13:21	MP13765-B1	4325	107090	10399	8970
13:26	ZZZZZZ	4403	111170	10535	9699
13:31	MA46419-CCV3	4270	104710	10215	8699
13:37	MA46419-CCB4	4423	110660	10372	9723
13:42	MP13765-S1	4253	105550	10497	8696
13:47	MP13765-S2	4238	105540	10372	8675
13:52	JC85513-5F	4285	107620	10471	9069
13:57	MP13765-SD1	4393	108850	10404	9548
14:03	MP13751-MB1	4459	112050	10551	9822
14:08	MP13751-B1	4340	107370	10496	9017
14:13	ZZZZZZ	4681	115450	11356	9159
14:18	ZZZZZZ	4643	114500	11265	9135
14:23	ZZZZZZ	4850	118060	11223	9498
14:28	MA46419-CCV4	4284	105280	10296	8733
14:41	MA46419-CCB5	4449	111000	10420	9794
14:47	ZZZZZZ	4575	112490	10616	9731
14:52	MP13751-PS1	5030	125260	12530	9120
14:57	ZZZZZZ	4887	119770	11591	9645
15:02	MP13751-S1	4566	112810	10717	9369
15:07	MP13751-S2	4544	112350	10828	9356
15:12	JC85273-1	4602	114500	10924	9573
15:18	MP13751-SD1	4466	111200	10571	9700
15:23	ZZZZZZ	4152	103400	10996	7853
15:29	ZZZZZZ	4304	107100	10420	8787
15:34	MA46419-CCV5	4272	105240	10325	8722
15:39	MA46419-CCB6	4433	111620	10420	9759
15:44	ZZZZZZ	4461	110220	11113	8568
15:53	ZZZZZZ	4324	108160	10881	8624
15:59	ZZZZZZ	4289	108430	10402	8811

INTERNAL STANDARD SUMMARY

Login Number: JC85367  
 Account: BBLNYS - Arcadis  
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SE040319M1.ICP Date Analyzed: 04/03/19 Methods: EPA 200.7, SW846 6010D  
 Analyst: ND Run ID: MA46419  
 Parameters: Mn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
16:04	ZZZZZZ	4531	110730	10994	9141
16:09	ZZZZZZ	4471	110490	10628	9303
16:14	ZZZZZZ	4472	110730	10875	9249
16:19	ZZZZZZ	4490	111300	10951	9209
16:25	ZZZZZZ	4436	109350	10828	9131
16:30	ZZZZZZ	4374	109640	10527	9517
16:35	MA46419-CCV6	4255	105330	10280	8696
16:40	MA46419-CCB7	4429	110740	10356	9766
16:46	MA46419-ICSA2	3955	96892	10027	7681
16:51	MA46419-ICSAB2	3962	97129	9954	7687
16:56	ZZZZZZ	4372	109360	10684	8991
17:01	ZZZZZZ	4306	107740	10406	8960
17:06	ZZZZZZ	4444	112800	10590	9802
17:12	MP13761-S1	4448	109390	10896	8818
17:17	MP13761-S2	4434	110410	10893	8779
17:22	JC85321-4	4550	111910	10872	9246
17:27	MP13761-SD1	4499	112040	10526	9599
17:32	MA46419-CCV7	4302	106140	10381	8787
17:37	MA46419-CCB8	4461	111780	10444	9829
17:43	ZZZZZZ	4535	110890	10887	9232
17:48	ZZZZZZ	4547	112060	10941	9299
17:53	ZZZZZZ	4541	112010	10835	9315
17:59	MP13693-B1	4359	108320	10484	9084
18:04	MP13693-MB1	4480	113130	10711	9905
18:09	MP13693-B2	4380	108540	10603	9142
18:14	JC85075-1	4447	113270	10744	9845
18:19	MP13693-SD1	4481	112770	10575	9859
18:25	ZZZZZZ	4453	113050	10695	9824
18:30	MA46419-CCV8	4342	107240	10331	8867
18:35	MA46419-CCB9	4483	112480	10483	9877
18:41	ZZZZZZ	4467	113330	10709	9867
18:46	ZZZZZZ	4457	112680	10750	9818
18:52	ZZZZZZ	4467	113310	10610	9876

INTERNAL STANDARD SUMMARY

Login Number: JC85367  
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 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SE040319M1.ICP Date Analyzed: 04/03/19 Methods: EPA 200.7, SW846 6010D  
 Analyst: ND Run ID: MA46419  
 Parameters: Mn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
18:57	ZZZZZZ	4458	113080	10614	9857
19:02	ZZZZZZ	4465	112900	10572	9821
19:08	ZZZZZZ	4476	113210	10584	9868
19:13	ZZZZZZ	4466	113450	10568	9819
19:19	ZZZZZZ	4478	113130	10561	9855
19:24	ZZZZZZ	4470	112600	10532	9727
19:29	MA46419-CCV9	4359	106880	10256	8870
19:34	MA46419-CCB10	4499	112700	10346	9882
19:40	ZZZZZZ	4485	114280	10699	9868
19:45	ZZZZZZ	4488	114300	10575	9874
19:51	ZZZZZZ	4504	113280	10444	9817
19:56	ZZZZZZ	4495	113280	10473	9825
20:01	ZZZZZZ	4523	113260	10562	9689
20:07	ZZZZZZ	4533	112200	10468	9628
20:12	ZZZZZZ	4442	109790	10413	9234
20:17	ZZZZZZ	4491	112010	10524	9518
20:23	ZZZZZZ	4435	109740	10352	9414
20:28	MA46419-CCV10	4384	107580	10365	8927
20:33	MA46419-CCB11	4543	112880	10299	9973
20:39	ZZZZZZ	4536	112580	10375	9925
20:44	ZZZZZZ	4537	113780	10384	10000
20:49	ZZZZZZ	4569	113520	10309	9999
20:55	ZZZZZZ	4554	113350	10320	9978
21:00	ZZZZZZ	4549	112400	10364	9983
21:06	ZZZZZZ	4520	112470	10382	9892
21:11	ZZZZZZ	4575	113090	10338	10072
21:17	ZZZZZZ	4547	113030	10342	10035
21:22	ZZZZZZ	4706	105890	10612	8917
21:28	ZZZZZZ	4165	103880	10220	8597
21:33	ZZZZZZ	4169	102650	9862	8563
21:39	ZZZZZZ	4548	113110	10317	9991
21:44	MA46419-CCV11	4410	106920	10133	8984
21:49	MA46419-CCB12	4549	113160	10262	10002

INTERNAL STANDARD SUMMARY

Login Number: JC85367  
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 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SE040319M1.ICP Date Analyzed: 04/03/19 Methods: EPA 200.7, SW846 6010D  
 Analyst: ND Run ID: MA46419  
 Parameters: Mn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
21:55	ZZZZZZ	4444	109640	10343	9458
22:00	ZZZZZZ	4428	110190	10318	9422
22:05	ZZZZZZ	4411	109470	10333	9342
22:11	ZZZZZZ	4555	113520	10389	10019
22:16	ZZZZZZ	3812	94060	9868	7378
22:22	ZZZZZZ	3622	89032	9586	6981
22:27	ZZZZZZ	4186	103370	9963	8485
22:32	ZZZZZZ	4221	105160	10145	8602
22:38	ZZZZZZ	4568	113300	10253	10053
22:43	ZZZZZZ	4267	104930	10093	8702
22:48	MA46419-CCV12	4429	107530	10225	9045
22:53	MA46419-CCB13	4585	113220	10214	10078
22:59	ZZZZZZ	4567	114010	10289	10055
23:04	ZZZZZZ	4501	110850	10258	9649
23:10	JC85367-4F	4357	107790	10199	9194
23:15	ZZZZZZ	4555	113550	10339	10043
23:21	MP13672-SD1	4538	111580	10169	9834
23:26	ZZZZZZ	4760	115050	10534	9598
23:31	ZZZZZZ	4749	114870	10657	9549
23:37	ZZZZZZ	4846	117310	10918	9524
23:42	ZZZZZZ	4803	116460	10765	9531
23:47	ZZZZZZ	4693	113790	10657	9519
23:52	MA46419-CCV13	4437	107330	10038	9059
23:57	MA46419-CCB14	4607	113680	10138	10133
00:03	ZZZZZZ	4694	112950	10450	9577
00:08	ZZZZZZ	4970	121390	11096	9677
00:13	ZZZZZZ	4837	117230	10882	9543
00:18	ZZZZZZ	4612	111550	10318	9574
00:24	ZZZZZZ	4553	111860	10359	9427
00:29	ZZZZZZ	4787	118770	10725	9483
00:34	ZZZZZZ	4716	114200	10575	9549
00:39	ZZZZZZ	4345	105960	10039	8882
00:45	ZZZZZZ	4330	105630	10094	8831

INTERNAL STANDARD SUMMARY

Login Number: JC85367  
 Account: BBLNYS - Arcadis  
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SE040319M1.ICP      Date Analyzed: 04/03/19      Methods: EPA 200.7, SW846 6010D  
 Analyst: ND      Run ID: MA46419  
 Parameters: Mn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
00:51	ZZZZZZ	4218	103840	9997	8542
00:56	MA46419-CCV14	4467	108030	10032	9109
01:01	MA46419-CCB15	4615	114010	10125	10138
01:07	ZZZZZZ	4285	105290	10022	8683
01:12	ZZZZZZ	4341	105540	10053	8820
01:18	MP13782-B1	4507	110040	10243	9369
01:23	MP13782-MB1	4613	114690	10275	10165
01:28	MP13782-S1	4273	104320	10004	8372
01:33	MP13782-S2	4299	104460	10043	8380
01:38	JC85111-20A	4411	108190	10336	8624
01:43	MP13782-SD1	4546	111980	10238	9465
01:49	ZZZZZZ	4590	113530	10833	9208
01:54	ZZZZZZ	4647	113140	10583	9289
01:59	MA46419-CCV15	4564	107050	9977	9299
02:04	MA46419-CCB16	4617	114020	10127	10142
02:10	ZZZZZZ	4587	113240	10520	9247
02:15	ZZZZZZ	4488	110360	10587	8969
02:20	ZZZZZZ	4579	113230	10448	9347
02:25	ZZZZZZ	4582	113670	10429	9692
02:30	ZZZZZZ	4558	111610	10553	9188
02:36	ZZZZZZ	4669	113560	10687	9436
02:41	ZZZZZZ	4587	112610	10507	9146
02:46	ZZZZZZ	4739	116510	10400	9519
02:51	ZZZZZZ	4715	115400	10245	9625
02:56	ZZZZZZ	4917	116840	11139	9735
03:02	MA46419-CCV16	4483	110660	10011	9135
03:07	MA46419-CCB17	4623	114800	10102	10167
03:12	ZZZZZZ	4399	108540	10303	8493
03:18	ZZZZZZ	4731	116650	10705	9401
03:23	ZZZZZZ	4656	114260	10836	9463
03:28	ZZZZZZ	4656	113030	10592	9658
03:33	ZZZZZZ	4319	106860	10058	8377
03:39	ZZZZZZ	4654	114950	10221	9881



INTERNAL STANDARD SUMMARY

Login Number: JC85367  
 Account: BBLNYS - Arcadis  
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SE040319M1.ICP Date Analyzed: 04/03/19 Methods: EPA 200.7, SW846 6010D  
 Analyst: ND Run ID: MA46419  
 Parameters: Mn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
03:44	ZZZZZZ	4613	112310	10564	9432
03:49	MP13755-B1	4465	110220	9924	9297
03:54	MP13755-MB1	4615	114620	10133	10143
04:00	MA46419-CCV17	4535	108320	9968	9232
04:05	MA46419-CCB18	4614	113710	10043	10139
04:10	MP13755-S1	3597	88251	9326	6832
04:15	MP13755-S2	3621	88751	9265	6873
04:21	JC85432-1	3589	87203	9268	6854
04:26	MP13755-SD1	4136	101070	9692	8233
04:32	ZZZZZZ	4391	108320	9951	9184
04:37	ZZZZZZ	4268	103670	9722	8491
04:43	ZZZZZZ	4068	100430	9807	8023
04:48	ZZZZZZ	3959	95277	9548	7598
04:54	ZZZZZZ	4394	108900	9933	9184
04:59	ZZZZZZ	4198	103440	9787	8423
05:05	MA46419-CCV18	4470	107510	9738	9133
05:10	MA46419-CCB19	4606	113820	9893	10143
05:16	ZZZZZZ	4102	99764	9618	8081
05:21	ZZZZZZ	3976	96821	9494	7617
05:27	ZZZZZZ	4392	108600	9850	9176
05:33	ZZZZZZ	4247	104490	9723	8586
05:38	ZZZZZZ	4148	101750	9611	8189
05:44	ZZZZZZ	4023	99609	9553	7723
05:49	ZZZZZZ	4175	101970	9682	8341
05:55	ZZZZZZ	4016	96972	9530	7860
06:01	ZZZZZZ	3834	94026	9486	7365
06:06	MA46419-CCV19	4474	108360	9704	9135
06:11	MA46419-CCB20	4606	114680	9797	10137
06:17	ZZZZZZ	3641	88961	9107	6968
06:22	ZZZZZZ	4613	114920	9757	10143
06:28	ZZZZZZ	4608	114160	9746	10133
06:33	ZZZZZZ	4388	106430	9594	8979
06:39	MA46419-CCV20	4491	107160	9688	9157

INTERNAL STANDARD SUMMARY

Login Number: JC85367  
 Account: BBLNYS - Arcadis  
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SE040319M1.ICP      Date Analyzed: 04/03/19      Methods: EPA 200.7, SW846 6010D  
 Analyst: ND      Run ID: MA46419  
 Parameters: Mn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
------	--------------------	--------	--------	--------	--------

06:44 MA46419-CCB21 4650 114540 9684 10211

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 %

6.3.2  
6

BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC85367  
 Account: BBLNYS - Arcadis  
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SE040319M1.ICP Date Analyzed: 04/03/19 Methods: EPA 200.7, SW846 6010D  
 QC Limits: result < RL Run ID: MA46419 Units: ug/l

Metal	Time:		10:33		10:48		11:46		12:43		
	Sample ID:	RL	IDL	ICB1	final	CCB1	final	CCB2	final	CCB3	final
Aluminum	200	13	anr								
Antimony	6.0	1.1	anr								
Arsenic	3.0	1.2	anr								
Barium	200	.2	anr								
Beryllium	1.0	.1	anr								
Bismuth	20	1.8									
Boron	100	1.2									
Cadmium	3.0	.2	anr								
Calcium	5000	3.7	anr								
Chromium	10	.4	anr								
Cobalt	50	.3	anr								
Copper	10	1	anr								
Iron	100	2.4	anr								
Lead	3.0	1.5	anr								
Lithium	50	1.5									
Magnesium	5000	17	anr								
Manganese	15	.1	0.200	<15	0.500	<15	0.700	<15	0.400	<15	
Molybdenum	20	.3	anr								
Nickel	10	.3	anr								
Phosphorus	50	2									
Potassium	10000	40	anr								
Selenium	10	1.8	anr								
Silicon	200	.9									
Silver	10	.5	anr								
Sodium	10000	13	anr								
Strontium	10	.2									
Sulfur	50	3.5									
Thallium	10	1.6	anr								
Tin	10	.6									
Titanium	10	.6									
Tungsten	50	1.1									
Vanadium	50	.4	anr								
Zinc	20	.2	anr								

BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

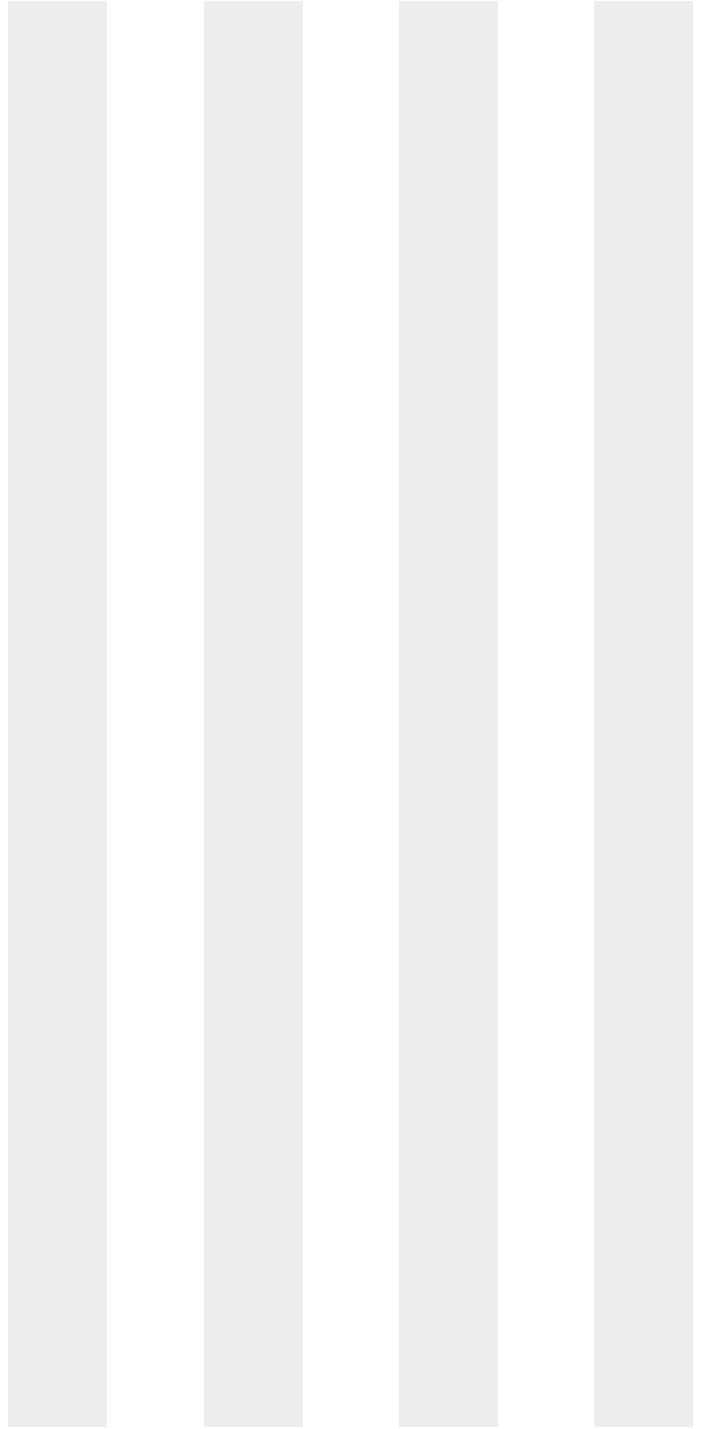
Login Number: JC85367  
 Account: BBLNYS - Arcadis  
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SE040319M1.ICP Date Analyzed: 04/03/19 Methods: EPA 200.7, SW846 6010D  
 QC Limits: result < RL Run ID: MA46419 Units: ug/l

Time:			10:33		10:48		11:46		12:43	
Sample ID:			ICB1		CCB1		CCB2		CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final

Zirconium 10 .2

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



6.3.3  
 6

BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC85367  
 Account: BBLNYS - Arcadis  
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SE040319M1.ICP Date Analyzed: 04/03/19 Methods: EPA 200.7, SW846 6010D  
 QC Limits: result < RL Run ID: MA46419 Units: ug/l

Metal	RL	IDL	13:37	14:41		15:39		16:40		
			CCB4	raw	final	raw	final	raw	final	raw
Aluminum	200	13	anr							
Antimony	6.0	1.1	anr							
Arsenic	3.0	1.2	anr							
Barium	200	.2	anr							
Beryllium	1.0	.1	anr							
Bismuth	20	1.8								
Boron	100	1.2								
Cadmium	3.0	.2	anr							
Calcium	5000	3.7	anr							
Chromium	10	.4	anr							
Cobalt	50	.3	anr							
Copper	10	1	anr							
Iron	100	2.4	anr							
Lead	3.0	1.5	anr							
Lithium	50	1.5								
Magnesium	5000	17	anr							
Manganese	15	.1	0.700	<15	0.900	<15	1.20	<15	0.200	<15
Molybdenum	20	.3	anr							
Nickel	10	.3	anr							
Phosphorus	50	2								
Potassium	10000	40	anr							
Selenium	10	1.8	anr							
Silicon	200	.9								
Silver	10	.5	anr							
Sodium	10000	13	anr							
Strontium	10	.2								
Sulfur	50	3.5								
Thallium	10	1.6	anr							
Tin	10	.6								
Titanium	10	.6								
Tungsten	50	1.1								
Vanadium	50	.4	anr							
Zinc	20	.2	anr							

BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

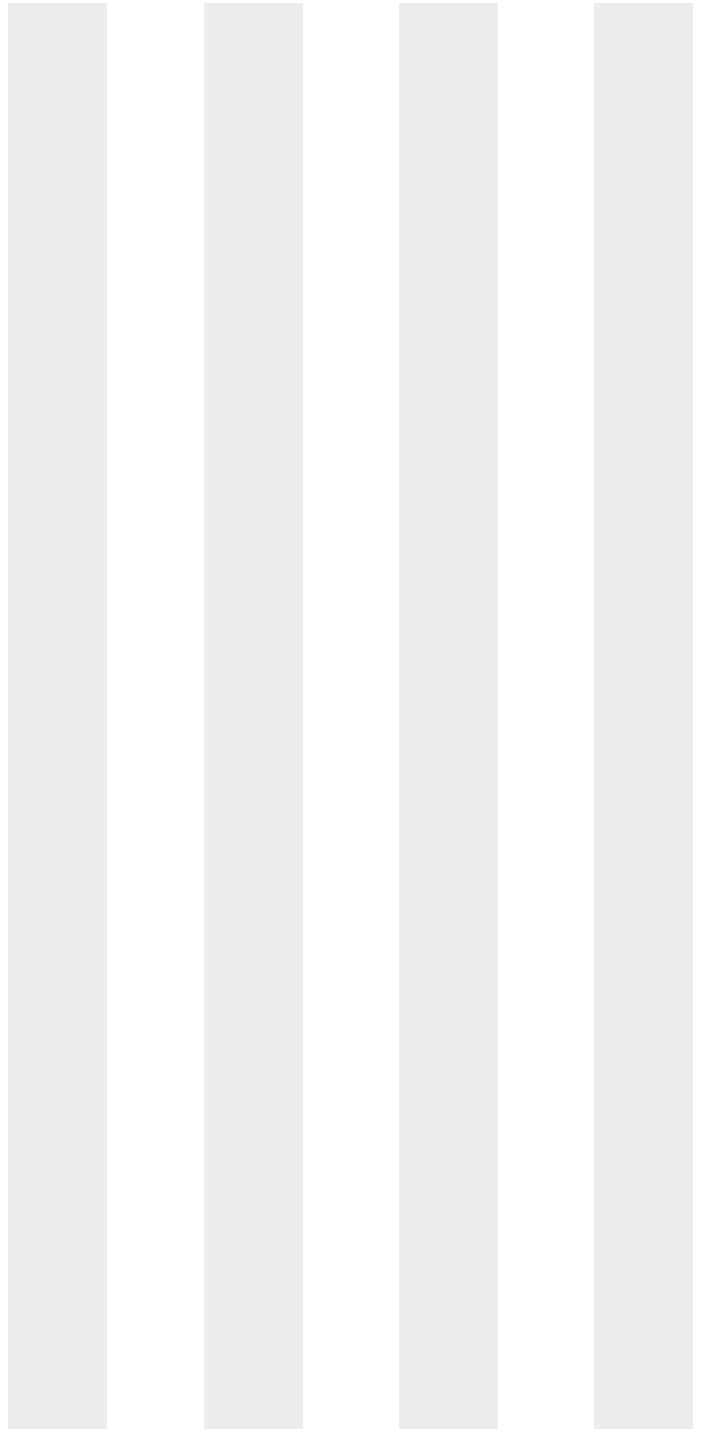
Login Number: JC85367  
 Account: BBLNYS - Arcadis  
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SE040319M1.ICP      Date Analyzed: 04/03/19      Methods: EPA 200.7, SW846 6010D  
 QC Limits: result < RL      Run ID: MA46419      Units: ug/l

Time:	13:37	14:41	15:39	16:40						
Sample ID:	CCB4	CCB5	CCB6	CCB7						
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final

Zirconium      10      .2

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



6.3.3  
 6

BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC85367  
 Account: BBLNYS - Arcadis  
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SE040319M1.ICP Date Analyzed: 04/03/19 Methods: EPA 200.7, SW846 6010D  
 QC Limits: result < RL Run ID: MA46419 Units: ug/l

Metal	RL	IDL	17:37	18:35		19:34		20:33		
			CCB8	raw	final	raw	final	raw	final	raw
Aluminum	200	13	anr							
Antimony	6.0	1.1	anr							
Arsenic	3.0	1.2	anr							
Barium	200	.2	anr							
Beryllium	1.0	.1	anr							
Bismuth	20	1.8								
Boron	100	1.2								
Cadmium	3.0	.2	anr							
Calcium	5000	3.7	anr							
Chromium	10	.4	anr							
Cobalt	50	.3	anr							
Copper	10	1	anr							
Iron	100	2.4	anr							
Lead	3.0	1.5	anr							
Lithium	50	1.5								
Magnesium	5000	17	anr							
Manganese	15	.1	1.50	<15	0.00	<15	0.00	<15	0.100	<15
Molybdenum	20	.3	anr							
Nickel	10	.3	anr							
Phosphorus	50	2								
Potassium	10000	40	anr							
Selenium	10	1.8	anr							
Silicon	200	.9								
Silver	10	.5	anr							
Sodium	10000	13	anr							
Strontium	10	.2								
Sulfur	50	3.5								
Thallium	10	1.6	anr							
Tin	10	.6								
Titanium	10	.6								
Tungsten	50	1.1								
Vanadium	50	.4	anr							
Zinc	20	.2	anr							

6.3.3  
6

BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

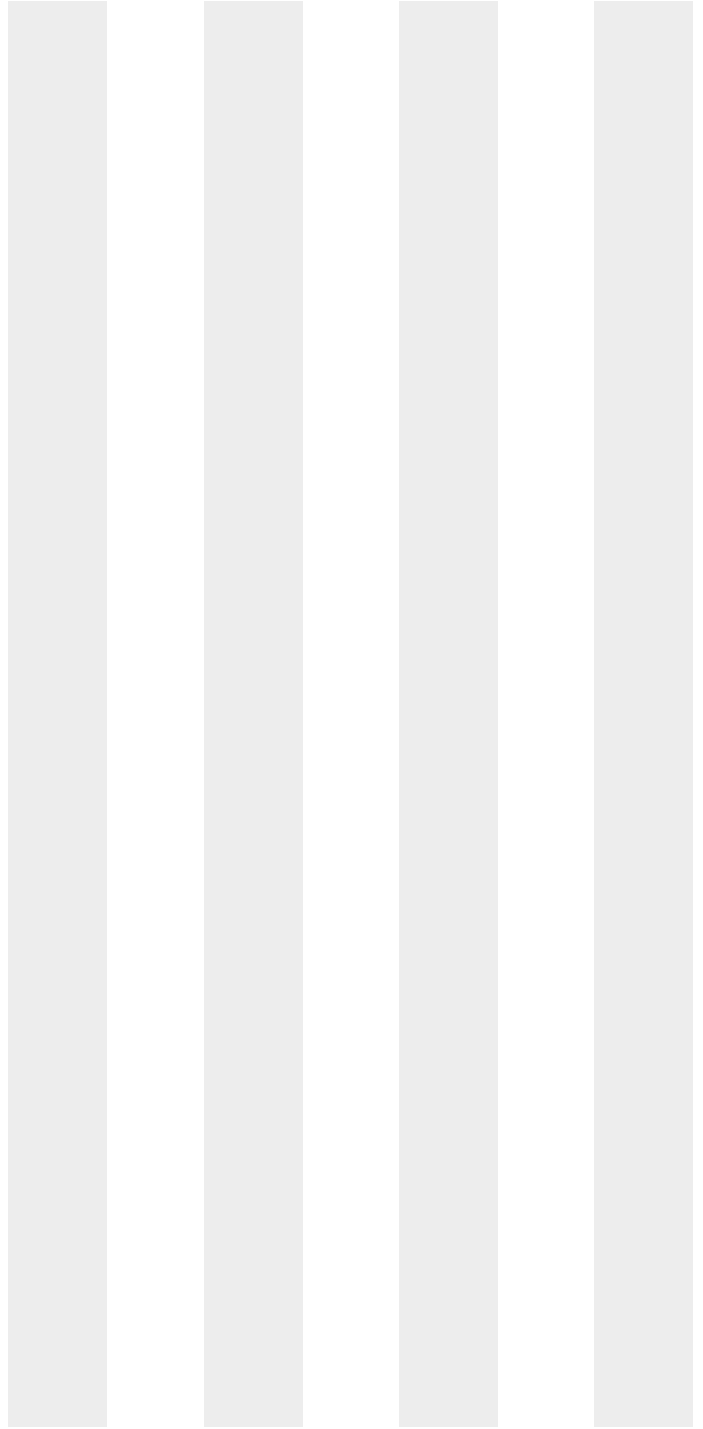
Login Number: JC85367  
 Account: BBLNYS - Arcadis  
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SE040319M1.ICP      Date Analyzed: 04/03/19      Methods: EPA 200.7, SW846 6010D  
 QC Limits: result < RL      Run ID: MA46419      Units: ug/l

Time:	17:37	18:35	19:34	20:33						
Sample ID:	CCB8	CCB9	CCB10	CCB11						
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final

Zirconium      10      .2

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



6.3.3  
 6



BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC85367  
 Account: BBLNYS - Arcadis  
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SE040319M1.ICP Date Analyzed: 04/03/19 Methods: EPA 200.7, SW846 6010D  
 QC Limits: result < RL Run ID: MA46419 Units: ug/l

Metal	RL	IDL	Time:	21:49	22:53	23:57			
			Sample ID:	CCB12	CCB13	CCB14	raw	final	
Aluminum	200	13		anr					
Antimony	6.0	1.1		anr					
Arsenic	3.0	1.2		anr					
Barium	200	.2		anr					
Beryllium	1.0	.1		anr					
Bismuth	20	1.8							
Boron	100	1.2							
Cadmium	3.0	.2		anr					
Calcium	5000	3.7		anr					
Chromium	10	.4		anr					
Cobalt	50	.3		anr					
Copper	10	1		anr					
Iron	100	2.4		anr					
Lead	3.0	1.5		anr					
Lithium	50	1.5							
Magnesium	5000	17		anr					
Manganese	15	.1		0.300	<15	0.200	<15	0.400	<15
Molybdenum	20	.3		anr					
Nickel	10	.3		anr					
Phosphorus	50	2							
Potassium	10000	40		anr					
Selenium	10	1.8		anr					
Silicon	200	.9							
Silver	10	.5		anr					
Sodium	10000	13		anr					
Strontium	10	.2							
Sulfur	50	3.5							
Thallium	10	1.6		anr					
Tin	10	.6							
Titanium	10	.6							
Tungsten	50	1.1							
Vanadium	50	.4		anr					
Zinc	20	.2		anr					

BLANK RESULTS SUMMARY  
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC85367  
 Account: BBLNYS - Arcadis  
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SE040319M1.ICP Date Analyzed: 04/03/19 Methods: EPA 200.7, SW846 6010D  
 QC Limits: result < RL Run ID: MA46419 Units: ug/l

Time:	21:49	22:53	23:57
Sample ID:	CCB12	CCB13	CCB14
Metal	raw	raw	raw
	final	final	final

Zirconium 10 .2

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



6.3.3

6

CALIBRATION CHECK STANDARDS SUMMARY  
Initial Continuing Calibration Check

Login Number: JC85367  
Account: BBLNYS - Arcadis  
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SE040319M1.ICP Date Analyzed: 04/03/19 Methods: EPA 200.7, SW846 6010D  
QC Limits: to % Recovery Run ID: MA46419 Units: ug/l

Metal	Sample ID	ICCV	Time: 10:40 ICCV1	Results	% Rec
Aluminum		anr			
Antimony		anr			
Arsenic		anr			
Barium		anr			
Beryllium		anr			
Bismuth					
Boron					
Cadmium		anr			
Calcium		anr			
Chromium		anr			
Cobalt		anr			
Copper		anr			
Iron		anr			
Lead		anr			
Lithium					
Magnesium		anr			
Manganese	2000		2030		101.5
Molybdenum		anr			
Nickel		anr			
Phosphorus					
Potassium		anr			
Selenium		anr			
Silicon					
Silver		anr			
Sodium		anr			
Strontium					
Sulfur					
Thallium		anr			
Tin					
Titanium					
Tungsten					
Vanadium		anr			
Zinc		anr			

6.3.4  
6

CALIBRATION CHECK STANDARDS SUMMARY  
Initial Continuing Calibration Check

Login Number: JC85367  
Account: BBLNYS - Arcadis  
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SE040319M1.ICP      Date Analyzed: 04/03/19      Methods: EPA 200.7, SW846 6010D  
QC Limits: to % Recovery      Run ID: MA46419      Units: ug/l

Time:	10:40		
Sample ID: ICCV	ICCV1		
Metal	True	Results	% Rec

Zirconium

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

6.3.4

6

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC85367  
Account: BBLNYS - Arcadis  
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SE040319M1.ICP      Date Analyzed: 04/03/19      Methods: EPA 200.7, SW846 6010D  
QC Limits: 95 to 105 % Recovery      Run ID: MA46419      Units: ug/l

Metal	Time:	10:28			11:41			12:38		
	Sample ID:	ICV	ICV1	% Rec	CCV	CCV1	% Rec	CCV	CCV2	% Rec
Aluminum	anr									
Antimony	anr									
Arsenic	anr									
Barium	anr									
Beryllium	anr									
Bismuth										
Boron										
Cadmium	anr									
Calcium	anr									
Chromium	anr									
Cobalt	anr									
Copper	anr									
Iron	anr									
Lead	anr									
Lithium										
Magnesium	anr									
Manganese	2000	1990	99.5		2000	2020	101.0	2000	2000	100.0
Molybdenum	anr									
Nickel	anr									
Phosphorus										
Potassium	anr									
Selenium	anr									
Silicon										
Silver	anr									
Sodium	anr									
Strontium										
Sulfur										
Thallium	anr									
Tin										
Titanium										
Tungsten										
Vanadium	anr									
Zinc	anr									

6.3.5  
6

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC85367  
Account: BBLNYS - Arcadis  
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SE040319M1.ICP      Date Analyzed: 04/03/19      Methods: EPA 200.7, SW846 6010D  
QC Limits: 95 to 105 % Recovery      Run ID: MA46419      Units: ug/l

	Time:		10:28		11:41		12:38		
Sample ID:	ICV	ICV1	CCV	CCV1	CCV	CCV2			
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec

Zirconium

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



6.3.5

6

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC85367  
Account: BBLNYS - Arcadis  
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SE040319M1.ICP      Date Analyzed: 04/03/19      Methods: EPA 200.7, SW846 6010D  
QC Limits: 95 to 105 % Recovery      Run ID: MA46419      Units: ug/l

Metal	Sample ID: CCV	13:31		CCV	14:28		CCV	15:34	
		CCV3	Results % Rec		CCV4	Results % Rec		CCV5	Results % Rec
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Bismuth									
Boron									
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	anr								
Lithium									
Magnesium	anr								
Manganese	2000	2010	100.5	2000	2000	100.0	2000	2000	100.0
Molybdenum	anr								
Nickel	anr								
Phosphorus									
Potassium	anr								
Selenium	anr								
Silicon									
Silver	anr								
Sodium	anr								
Strontium									
Sulfur									
Thallium	anr								
Tin									
Titanium									
Tungsten									
Vanadium	anr								
Zinc	anr								

6.3.5  
6

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

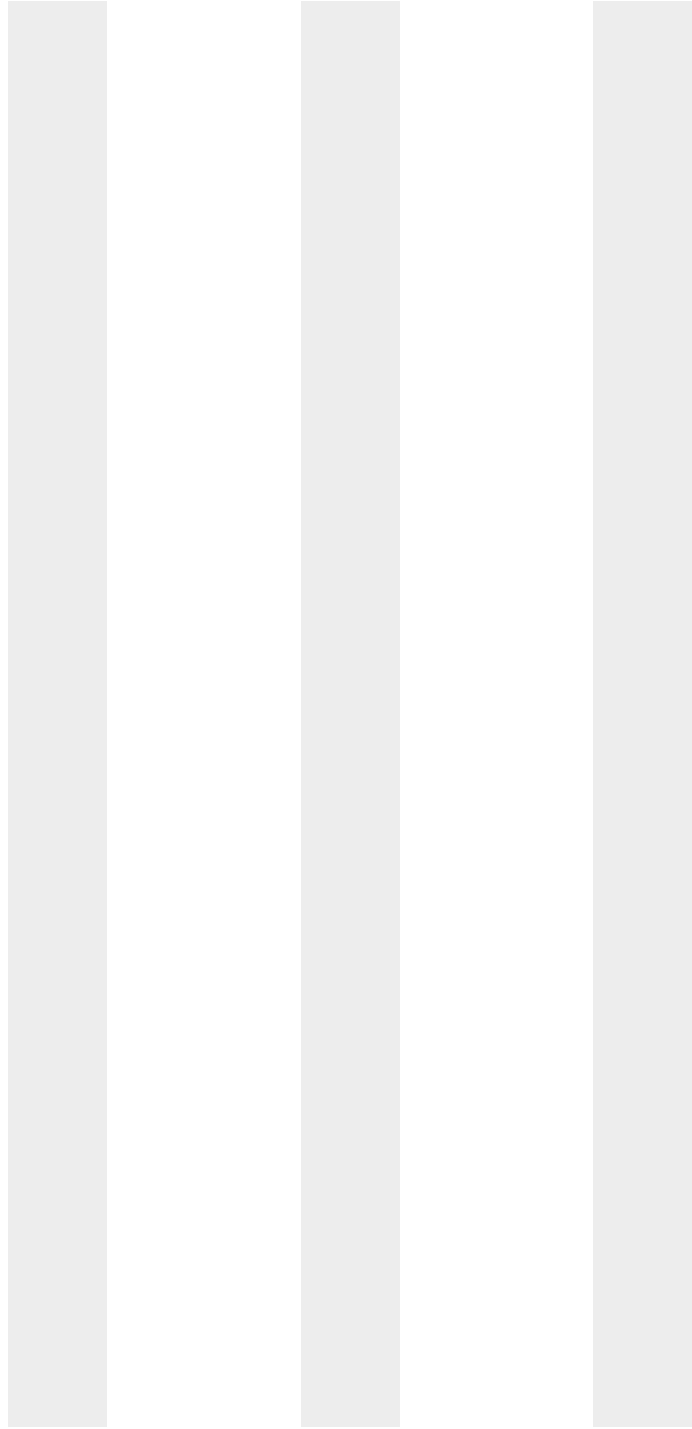
Login Number: JC85367  
Account: BBLNYS - Arcadis  
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SE040319M1.ICP      Date Analyzed: 04/03/19      Methods: EPA 200.7, SW846 6010D  
QC Limits: 95 to 105 % Recovery      Run ID: MA46419      Units: ug/l

	Time:		13:31		14:28		15:34		
Sample ID:	CCV	CCV3		CCV		CCV4		CCV	
Metal	True	Results	% Rec	True <td></td> <th>Results</th> <td>% Rec</td> <th>True <td></td> </th>		Results	% Rec	True <td></td>	

Zirconium

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



6.3.5  
6



CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC85367  
Account: BBLNYS - Arcadis  
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SE040319M1.ICP      Date Analyzed: 04/03/19      Methods: EPA 200.7, SW846 6010D  
QC Limits: 95 to 105 % Recovery      Run ID: MA46419      Units: ug/l

Metal	Sample ID: CCV	16:35		CCV	17:32		CCV	18:30	
		CCV6	Results		CCV7	Results		CCV8	Results
	True		% Rec	True		% Rec	True		% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Bismuth									
Boron									
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	anr								
Lithium									
Magnesium	anr								
Manganese	2000	2000	100.0	2000	1990	99.5	2000	1960	98.0
Molybdenum	anr								
Nickel	anr								
Phosphorus									
Potassium	anr								
Selenium	anr								
Silicon									
Silver	anr								
Sodium	anr								
Strontium									
Sulfur									
Thallium	anr								
Tin									
Titanium									
Tungsten									
Vanadium	anr								
Zinc	anr								

6.3.5  
6

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC85367  
Account: BBLNYS - Arcadis  
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SE040319M1.ICP      Date Analyzed: 04/03/19      Methods: EPA 200.7, SW846 6010D  
QC Limits: 95 to 105 % Recovery      Run ID: MA46419      Units: ug/l

	Time:		16:35		17:32		18:30		
Sample ID:	CCV	CCV6		CCV		CCV7		CCV	
Metal	True	Results	% Rec	True <td></td> <th>Results</th> <td>% Rec</td> <th>True <td></td> </th>		Results	% Rec	True <td></td>	
		Results	% Rec			Results	% Rec		

Zirconium

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



6.3.5  
6

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC85367  
Account: BBLNYS - Arcadis  
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SE040319M1.ICP      Date Analyzed: 04/03/19      Methods: EPA 200.7, SW846 6010D  
QC Limits: 95 to 105 % Recovery      Run ID: MA46419      Units: ug/l

Metal	Sample ID: CCV	19:29		CCV	20:28		CCV	21:44	
		CCV9	Results % Rec		CCV10	Results % Rec		CCV11	Results % Rec
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Bismuth									
Boron									
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	anr								
Lithium									
Magnesium	anr								
Manganese	2000	1960	98.0	2000	1980	99.0	2000	1970	98.5
Molybdenum	anr								
Nickel	anr								
Phosphorus									
Potassium	anr								
Selenium	anr								
Silicon									
Silver	anr								
Sodium	anr								
Strontium									
Sulfur									
Thallium	anr								
Tin									
Titanium									
Tungsten									
Vanadium	anr								
Zinc	anr								

6.3.5  
6

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC85367  
Account: BBLNYS - Arcadis  
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SE040319M1.ICP      Date Analyzed: 04/03/19      Methods: EPA 200.7, SW846 6010D  
QC Limits: 95 to 105 % Recovery      Run ID: MA46419      Units: ug/l

	Time:								
	Sample ID:	CCV	19:29 CCV9	CCV	20:28 CCV10	CCV	21:44 CCV11	CCV	CCV11
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec

Zirconium

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



6.3.5  
6

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC85367  
Account: BBLNYS - Arcadis  
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SE040319M1.ICP      Date Analyzed: 04/03/19      Methods: EPA 200.7, SW846 6010D  
QC Limits: 95 to 105 % Recovery      Run ID: MA46419      Units: ug/l

	Time:	22:48		23:52		
Sample ID:	CCV	CCV12	CCV	CCV13		
Metal	True	Results	% Rec	True	Results	% Rec
Aluminum	anr					
Antimony	anr					
Arsenic	anr					
Barium	anr					
Beryllium	anr					
Bismuth						
Boron						
Cadmium	anr					
Calcium	anr					
Chromium	anr					
Cobalt	anr					
Copper	anr					
Iron	anr					
Lead	anr					
Lithium						
Magnesium	anr					
Manganese	2000	1980	99.0	2000	1980	99.0
Molybdenum	anr					
Nickel	anr					
Phosphorus						
Potassium	anr					
Selenium	anr					
Silicon						
Silver	anr					
Sodium	anr					
Strontium						
Sulfur						
Thallium	anr					
Tin						
Titanium						
Tungsten						
Vanadium	anr					
Zinc	anr					

6.3.5  
6

CALIBRATION CHECK STANDARDS SUMMARY  
Initial and Continuing Calibration Checks

Login Number: JC85367  
Account: BBLNYS - Arcadis  
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SE040319M1.ICP      Date Analyzed: 04/03/19      Methods: EPA 200.7, SW846 6010D  
QC Limits: 95 to 105 % Recovery      Run ID: MA46419      Units: ug/l

	Time:	22:48		23:52	
Sample ID:	CCV	CCV12	CCV	CCV13	
Metal	True	Results	% Rec	True	Results
					% Rec

Zirconium

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



6.3.5

6

HIGH STANDARD CHECK SUMMARY

Login Number: JC85367  
 Account: BBLNYS - Arcadis  
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SE040319M1.ICP Date Analyzed: 04/03/19 Methods: EPA 200.7, SW846 6010D  
 QC Limits: 90 to 110 % Recovery Run ID: MA46419 Units: ug/l

	Time:		11:13		11:19	
Sample ID:	HSTD	HSTD1	HSTD1	HSTD	HSTD2	HSTD2
Metal	True	Results	% Rec	True	Results	% Rec
Aluminum						
Antimony	anr					
Arsenic	anr					
Barium	anr					
Beryllium	anr					
Bismuth						
Boron						
Cadmium	anr					
Calcium						
Chromium	anr					
Cobalt	anr					
Copper	anr					
Iron						
Lead	anr					
Lithium						
Magnesium						
Manganese	8000	7980	99.8			
Molybdenum	anr					
Nickel	anr					
Phosphorus						
Potassium						
Selenium	anr					
Silicon						
Silver	anr					
Sodium						
Strontium						
Sulfur						
Thallium	anr					
Tin						
Titanium						
Tungsten						
Vanadium	anr					
Zinc	anr					

6.3.6  
6

HIGH STANDARD CHECK SUMMARY

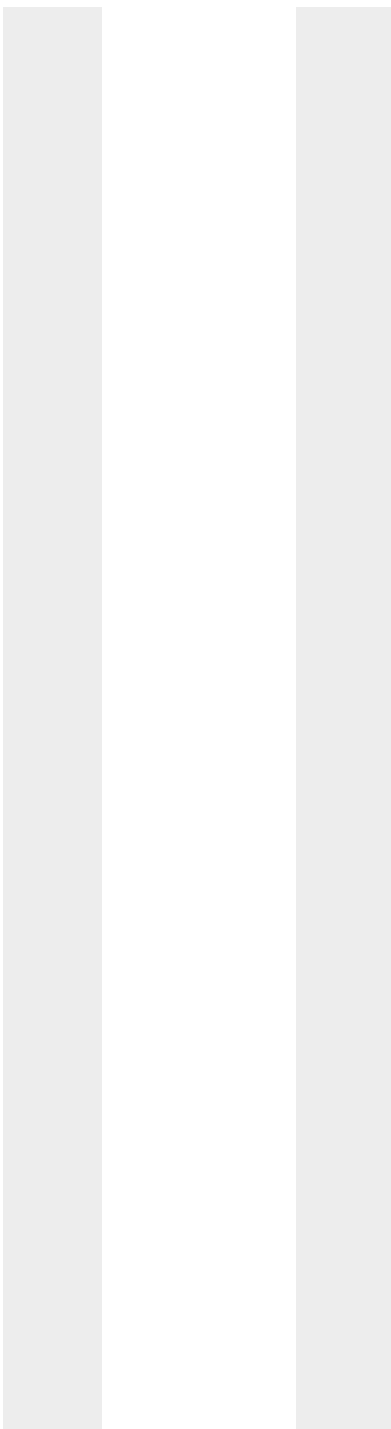
Login Number: JC85367  
 Account: BBLNYS - Arcadis  
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SE040319M1.ICP Date Analyzed: 04/03/19 Methods: EPA 200.7, SW846 6010D  
 QC Limits: 90 to 110 % Recovery Run ID: MA46419 Units: ug/l

Time:	11:13	11:19	
Sample ID:	HSTD1	HSTD2	
Metal	True	True	
	Results	Results	% Rec

Zirconium

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



6.3.6  
 6



LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC85367  
 Account: BBLNYS - Arcadis  
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SE040319M1.ICP Date Analyzed: 04/03/19 Methods: EPA 200.7, SW846 6010D  
 QC Limits: CRI 80-120% CRIA 80-120% Run ID: MA46419 Units: ug/l

Time:	Sample ID:	CRI	CRIA	CRID	10:52 CRI1	% Rec	10:58 CRID1	% Rec
Metal	True	True	True	True	Results		Results	% Rec
Aluminum	200	500	100	anr				
Antimony	6.0	20	3.0	anr				
Arsenic	8.0	20	3.0	anr				
Barium	200		4.0	anr				
Beryllium	2.0		1.0	anr				
Bismuth	20							
Boron	100		10					
Cadmium	3.0		1.0	anr				
Calcium	5000	2000	1000	anr				
Chromium	10		2.0	anr				
Cobalt	50		3.0	anr				
Copper	10		2.0	anr				
Iron	100	500		anr				
Lead	3.0	20	2.5	anr				
Lithium	50							
Magnesium	5000	2000	100	anr				
Manganese	15		3.0	15.8	105.3	3.10	103.3	
Molybdenum	20			anr				
Nickel	10		4.0	anr				
Phosphorus	50							
Potassium	5000		2000	anr				
Selenium	10	20	5.0	anr				
Silicon	200							
Silver	5.0		2.0	anr				
Sodium	5000		1000	anr				
Strontium	10							
Sulfur	50							
Thallium	10		2.0	anr				
Tin	10							
Titanium	10							
Tungsten	50							
Vanadium	50		2.0	anr				
Zinc	20		10	anr				

6.3.7  
6

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC85367  
 Account: BBLNYS - Arcadis  
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SE040319M1.ICP Date Analyzed: 04/03/19 Methods: EPA 200.7, SW846 6010D  
 QC Limits: CRI 80-120% CRIA 80-120% Run ID: MA46419 Units: ug/l

Time:				10:52			10:58		
Sample ID:	CRI	CRIA	CRID	CRI1			CRID1		
Metal	True	True	True	Results	% Rec	Results	% Rec		

Zirconium 10

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

6.3.7

6

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

Login Number: JC85367  
Account: BBLNYS - Arcadis  
Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SE040319M1.ICP      Date Analyzed: 04/03/19      Methods: EPA 200.7, SW846 6010D  
QC Limits: 80 to 120 % Recovery      Run ID: MA46419      Units: ug/l

Time:			11:03			11:08			16:46			16:51
Sample ID:	ICSA	ICSAB	ICSAL	% Rec	ICSAB1	% Rec	ICSAB2	% Rec	ICSAB2	% Rec		
Metal	True	True	Results		Results		Results		Results		Results	% Rec
Aluminum	500000	500000	515000	103.0	519000	103.8	503000	100.6	507000	101.4		
Antimony		1000	2.70		1080	108.0	2.90		1060	106.0		
Arsenic		1000	1.20		1080	108.0	-0.600		1060	106.0		
Barium		500	-0.400		511	102.2	-0.300		503	100.6		
Beryllium		500	0.200		499	99.8	0.300		485	97.0		
Bismuth		500	9.60		499	99.8	8.50		493	98.6		
Boron		500	-4.70		486	97.2	-7.30		477	95.4		
Cadmium		1000	-0.600		1030	103.0	-0.400		1010	101.0		
Calcium	400000	400000	398000	99.5	393000	98.3	388000	97.0	383000	95.8		
Chromium		500	-0.200		490	98.0	0.500		475	95.0		
Cobalt		500	-1.30		490	98.0	-0.900		482	96.4		
Copper		500	3.00		506	101.2	3.30		497	99.4		
Iron	200000	200000	198000	99.0	192000	96.0	192000	96.0	185000	92.5		
Lead		1000	-0.200		975	97.5	1.60		959	95.9		
Lithium		500	-11.3		526	105.2	-11.6		507	101.4		
Magnesium	500000	500000	507000	101.4	510000	102.0	491000	98.2	492000	98.4		
Manganese		500	-2.10		499	99.8	-2.20		485	97.0		
Molybdenum		500	-1.50		491	98.2	-1.20		482	96.4		
Nickel		1000	0.00		986	98.6	0.600		964	96.4		
Phosphorus		500	0.600		513	102.6	2.40		511	102.2		
Potassium			-415		-465		-410		-444			
Selenium		1000	-2.60		1060	106.0	-3.60		1040	104.0		
Silicon		500	-10.6		530	106.0	-10.0		522	104.4		
Silver		1000	-1.90		1040	104.0	-2.90		1020	102.0		
Sodium			1.80		12.2		-6.90		10.1			
Strontium		500	-3.30		565	113.0	-3.10		553	110.6		
Sulfur		500	-1.20		480	96.0	-4.10		477	95.4		
Thallium		1000	0.500		999	99.9	-1.10		987	98.7		
Tin		500	-1.80		464	92.8	-1.70		454	90.8		
Titanium		500	-1.10		495	99.0	-1.10		483	96.6		
Tungsten		500	10.1		483	96.6	12.1		472	94.4		
Vanadium		500	1.10		495	99.0	1.40		481	96.2		
Zinc		1000	-1.90		953	95.3	-1.90		927	92.7		

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

Login Number: JC85367  
 Account: BBLNYS - Arcadis  
 Project: National Grid, Philly Coke, Philadelphia, PA

File ID: SE040319M1.ICP Date Analyzed: 04/03/19 Methods: EPA 200.7, SW846 6010D  
 QC Limits: 80 to 120 % Recovery Run ID: MA46419 Units: ug/l

Time:		11:03		11:08		16:46		16:51		
Sample ID:	ICSAB	ICSAB	ICSAB1	ICSAB1	ICSAB1	ICSAB2	ICSAB2	ICSAB2	ICSAB2	
Metal	True	True	Results	% Rec	Results	% Rec	Results	% Rec	Results	% Rec

Zirconium		500	-1.80		520	104.0	-2.00		509	101.8
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(\*) Outside of QC limits  
 (anr) Analyte not requested

6.3.8

6

BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: JC85367  
Account: BBLNYS - Arcadis  
Project: National Grid, Philly Coke, Philadelphia, PA

QC Batch ID: MP13758  
Matrix Type: AQUEOUS

Methods: SW846 6010D  
Units: ug/l

Prep Date: 04/02/19

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	14	46	-3.3	<200
Antimony	6.0	1.3	4.7	1.5	<6.0
Arsenic	3.0	1.5	2.8	-1.2	<3.0
Barium	200	.3	13	0.30	<200
Beryllium	1.0	.1	.5	-0.10	<1.0
Bismuth	20	3.3	4		
Boron	100	.8	63		
Cadmium	3.0	.1	1	-0.10	<3.0
Calcium	5000	2.3	99	5.1	<5000
Chromium	10	.5	2	-0.10	<10
Cobalt	50	.4	2.6	0.10	<50
Copper	10	.8	5.9	-0.10	<10
Iron	100	4.4	32	-0.30	<100
Lead	3.0	1.1	1.8	0.40	<3.0
Lithium	50	4.4	7.3		
Magnesium	5000	14	140	15.8	<5000
Manganese	15	.1	1.4	0.0	<15
Molybdenum	20	.7	3.6		
Nickel	10	.3	1.7	0.0	<10
Phosphorus	50	2.4	18		
Potassium	10000	140	200	64.7	<10000
Selenium	10	1.8	4.9	-1.1	<10
Silicon	200	2.2	100		
Silver	10	.5	1.9	-1.3	<10
Sodium	10000	34	570	585	<10000
Strontium	10	.1	1		
Sulfur	50	9.8	45		
Thallium	10	1.3	1.8	-0.20	<10
Tin	10	.9	3.7		
Titanium	10	.3	2.5		
Tungsten	50	3.9	40		
Vanadium	50	.3	1.8	-0.10	<50
Zinc	20	1.3	6.9	1.7	<20

BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: JC85367  
Account: BBLNYS - Arcadis  
Project: National Grid, Philly Coke, Philadelphia, PA

QC Batch ID: MP13758  
Matrix Type: AQUEOUS

Methods: SW846 6010D  
Units: ug/l

Prep Date: 04/02/19

Metal	RL	IDL	MDL	MB	
				raw	final

Zirconium 10 .2 4.1

Associated samples MP13758: JC85367-1F, JC85367-2F, JC85367-3F, JC85367-4F

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: JC85367  
 Account: BBLNYS - Arcadis  
 Project: National Grid, Philly Coke, Philadelphia, PA

QC Batch ID: MP13758  
 Matrix Type: AQUEOUS

Methods: SW846 6010D  
 Units: ug/l

Prep Date: 04/02/19

Metal	JC85367-1F Original MS	Spikelot MPSPK2	% Rec	QC Limits	
Aluminum	0.00	25100	25000	100.4	75-125
Antimony	1.8	2020	2000	100.9	75-125
Arsenic	0.0	1920	2000	96.0	75-125
Barium	159	2220	2000	103.1	75-125
Beryllium	0.0	1920	2000	96.0	75-125
Bismuth					
Boron					
Cadmium	0.10	1960	2000	98.0	75-125
Calcium	106000	128000	25000	88.0	75-125
Chromium	0.0	1940	2000	97.0	75-125
Cobalt	0.0	1920	2000	96.0	75-125
Copper	0.0	1900	2000	95.0	75-125
Iron	621	23300	25000	90.7	75-125
Lead	0.0	1910	2000	95.5	75-125
Lithium					
Magnesium	43200	67600	25000	97.6	75-125
Manganese	1190	3070	2000	94.0	75-125
Molybdenum					
Nickel	0.50	1980	2000	99.0	75-125
Phosphorus					
Potassium	8700	34100	25000	101.6	75-125
Selenium	0.0	1890	2000	94.5	75-125
Silicon					
Silver	0.0	243	250	97.2	75-125
Sodium	14300	39600	25000	101.2	75-125
Strontium					
Sulfur					
Thallium	0.0	1990	2000	99.5	75-125
Tin					
Titanium					
Tungsten					
Vanadium	2.0	1940	2000	96.9	75-125
Zinc	0.0	1900	2000	95.0	75-125

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC85367  
Account: BBLNYS - Arcadis  
Project: National Grid, Philly Coke, Philadelphia, PA

QC Batch ID: MP13758  
Matrix Type: AQUEOUS

Methods: SW846 6010D  
Units: ug/l

Prep Date: 04/02/19

Metal	JC85367-1F Original MS	SpikeLot MPSPK2	% Rec	QC Limits
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Zirconium

Associated samples MP13758: JC85367-1F, JC85367-2F, JC85367-3F, JC85367-4F

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: JC85367  
 Account: BBLNYS - Arcadis  
 Project: National Grid, Philly Coke, Philadelphia, PA

QC Batch ID: MP13758  
 Matrix Type: AQUEOUS

Methods: SW846 6010D  
 Units: ug/l

Prep Date: 04/02/19

Metal	JC85367-1F Original MSD	24700	SpikeLot MPSPK2	% Rec	MSD RPD	QC Limit
Aluminum	0.00	24700	25000	98.8	1.6	20
Antimony	1.8	1980	2000	98.9	2.0	20
Arsenic	0.0	1870	2000	93.5	2.6	20
Barium	159	2200	2000	102.1	0.9	20
Beryllium	0.0	1910	2000	95.5	0.5	20
Bismuth						
Boron						
Cadmium	0.10	1950	2000	97.5	0.5	20
Calcium	106000	124000	25000	72.0 (a)	3.2	20
Chromium	0.0	1940	2000	97.0	0.0	20
Cobalt	0.0	1910	2000	95.5	0.5	20
Copper	0.0	1880	2000	94.0	1.1	20
Iron	621	21800	25000	84.7	6.7	20
Lead	0.0	1990	2000	99.5	4.1	20
Lithium						
Magnesium	43200	63300	25000	80.4	6.6	20
Manganese	1190	3010	2000	91.0	2.0	20
Molybdenum						
Nickel	0.50	1970	2000	98.5	0.5	20
Phosphorus						
Potassium	8700	35000	25000	105.2	2.6	20
Selenium	0.0	1870	2000	93.5	1.1	20
Silicon						
Silver	0.0	250	250	100.0	2.8	20
Sodium	14300	40300	25000	104.0	1.8	20
Strontium						
Sulfur						
Thallium	0.0	1970	2000	98.5	1.0	20
Tin						
Titanium						
Tungsten						
Vanadium	2.0	1930	2000	96.4	0.5	20
Zinc	0.0	1890	2000	94.5	0.5	20

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC85367  
 Account: BBLNYS - Arcadis  
 Project: National Grid, Philly Coke, Philadelphia, PA

QC Batch ID: MP13758  
 Matrix Type: AQUEOUS

Methods: SW846 6010D  
 Units: ug/l

Prep Date: 04/02/19

Metal	JC85367-1F Original MSD	SpikeLot MPSPK2	% Rec	MSD RPD	QC Limit
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Zirconium

Associated samples MP13758: JC85367-1F, JC85367-2F, JC85367-3F, JC85367-4F

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
- (a) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

6.4.2  
6

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC85367  
 Account: BBLNYS - Arcadis  
 Project: National Grid, Philly Coke, Philadelphia, PA

QC Batch ID: MP13758  
 Matrix Type: AQUEOUS

Methods: SW846 6010D  
 Units: ug/l

Prep Date: 04/02/19

Metal	BSP Result	Spikelot MPSPK2	% Rec	QC Limits
Aluminum	24700	25000	98.8	80-120
Antimony	1980	2000	99.0	80-120
Arsenic	1890	2000	94.5	80-120
Barium	2020	2000	101.0	80-120
Beryllium	1880	2000	94.0	80-120
Bismuth				
Boron				
Cadmium	1920	2000	96.0	80-120
Calcium	23900	25000	95.6	80-120
Chromium	1940	2000	97.0	80-120
Cobalt	1900	2000	95.0	80-120
Copper	1860	2000	93.0	80-120
Iron	22700	25000	90.8	80-120
Lead	1900	2000	95.0	80-120
Lithium				
Magnesium	23000	25000	92.0	80-120
Manganese	1970	2000	98.5	80-120
Molybdenum				
Nickel	1960	2000	98.0	80-120
Phosphorus				
Potassium	25100	25000	100.4	80-120
Selenium	1860	2000	93.0	80-120
Silicon				
Silver	238	250	95.2	80-120
Sodium	25300	25000	101.2	80-120
Strontium				
Sulfur				
Thallium	1990	2000	99.5	80-120
Tin				
Titanium				
Tungsten				
Vanadium	1920	2000	96.0	80-120
Zinc	1930	2000	96.5	80-120

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC85367  
Account: BBLNYS - Arcadis  
Project: National Grid, Philly Coke, Philadelphia, PA

QC Batch ID: MP13758  
Matrix Type: AQUEOUS

Methods: SW846 6010D  
Units: ug/l

Prep Date: 04/02/19

Metal	BSP Result	Spikelot MPSPK2	% Rec	QC Limits
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Zirconium

Associated samples MP13758: JC85367-1F, JC85367-2F, JC85367-3F, JC85367-4F

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

6.4.3

6

SERIAL DILUTION RESULTS SUMMARY

Login Number: JC85367  
 Account: BBLNYS - Arcadis  
 Project: National Grid, Philly Coke, Philadelphia, PA

QC Batch ID: MP13758  
 Matrix Type: AQUEOUS

Methods: SW846 6010D  
 Units: ug/l

Prep Date: 04/02/19

Metal	JC85367-1F Original	SDL 1:5	%DIF	QC Limits
Aluminum	0.00	0.00	NC	0-10
Antimony	1.80	0.00	100.0(a)	0-10
Arsenic	0.00	0.00	NC	0-10
Barium	159	164	3.3	0-10
Beryllium	0.00	0.00	NC	0-10
Bismuth				
Boron				
Cadmium	0.100	0.00	100.0(a)	0-10
Calcium	106000	109000	3.0	0-10
Chromium	0.00	0.00	NC	0-10
Cobalt	0.00	0.00	NC	0-10
Copper	0.00	0.00	NC	0-10
Iron	621	702	13.0*(b)	0-10
Lead	0.00	0.00	NC	0-10
Lithium				
Magnesium	43200	44700	3.4	0-10
Manganese	1190	1230	3.9	0-10
Molybdenum				
Nickel	0.500	0.00	100.0(a)	0-10
Phosphorus				
Potassium	8700	8860	1.9	0-10
Selenium	0.00	0.00	NC	0-10
Silicon				
Silver	0.00	0.00	NC	0-10
Sodium	14300	15200	5.9	0-10
Strontium				
Sulfur				
Thallium	0.00	0.00	NC	0-10
Tin				
Titanium				
Tungsten				
Vanadium	2.00	2.30	15.0 (a)	0-10
Zinc	0.00	0.00	NC	0-10

SERIAL DILUTION RESULTS SUMMARY

Login Number: JC85367  
Account: BBLNYS - Arcadis  
Project: National Grid, Philly Coke, Philadelphia, PA

QC Batch ID: MP13758  
Matrix Type: AQUEOUS

Methods: SW846 6010D  
Units: ug/l

Prep Date: 04/02/19

	JC85367-1F	QC
Metal	Original SDL 1:5 %DIF	Limits

Zirconium

Associated samples MP13758: JC85367-1F, JC85367-2F, JC85367-3F, JC85367-4F

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).

(b) Serial dilution indicates possible matrix interference.

BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: JC85367  
Account: BBLNYS - Arcadis  
Project: National Grid, Philly Coke, Philadelphia, PA

QC Batch ID: MP13777  
Matrix Type: AQUEOUS

Methods: SW846 7470A  
Units: ug/l

Prep Date: 04/02/19

Metal	RL	IDL	MDL	MB raw	final
Mercury	0.20	.035	.095	-0.075	<0.20

Associated samples MP13777: JC85367-1F, JC85367-2F, JC85367-3F, JC85367-4F

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

6.5.1  
6

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC85367  
 Account: BBLNYS - Arcadis  
 Project: National Grid, Philly Coke, Philadelphia, PA

QC Batch ID: MP13777  
 Matrix Type: AQUEOUS

Methods: SW846 7470A  
 Units: ug/l

Prep Date: 04/02/19

Metal	JC85367-1F Original MS	Spikelot HGPW3	% Rec	QC Limits
Mercury	0.0	1.8	2	90.0 75-125

Associated samples MP13777: JC85367-1F, JC85367-2F, JC85367-3F, JC85367-4F

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

6.5.2  
 6



MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC85367  
 Account: BBLNYS - Arcadis  
 Project: National Grid, Philly Coke, Philadelphia, PA

QC Batch ID: MP13777  
 Matrix Type: AQUEOUS

Methods: SW846 7470A  
 Units: ug/l

Prep Date: 04/02/19

Metal	JC85367-1F Original MSD	Spikelot HGPW3	% Rec	MSD RPD	QC Limit
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Mercury	0.0	1.9	2	95.0	5.4	20
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Associated samples MP13777: JC85367-1F, JC85367-2F, JC85367-3F, JC85367-4F

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

6.5.2

6

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC85367  
 Account: BBLNYS - Arcadis  
 Project: National Grid, Philly Coke, Philadelphia, PA

QC Batch ID: MP13777  
 Matrix Type: AQUEOUS

Methods: SW846 7470A  
 Units: ug/l

Prep Date: 04/02/19

Metal	BSP Result	Spikelot HGPW3	% Rec	QC Limits
Mercury	1.9	2	95.0	80-120

Associated samples MP13777: JC85367-1F, JC85367-2F, JC85367-3F, JC85367-4F

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

6.5.3  
 6

# Instrument Detection Limits

**Job Number:** JC85367  
**Account:** BBLNYS Arcadis  
**Project:** National Grid, Philly Coke, Philadelphia, PA

<b>Instrument ID:</b> LEEMANHG7	<b>Effective Date:</b> 02/18/19
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Analyte	IDL ug/l
Mercury	.0349

The above applies to the following instrument runs:  
MA46407

6.6  
6

# Instrument Detection Limits

Job Number: JC85367  
Account: BBLNYS Arcadis  
Project: National Grid, Philly Coke, Philadelphia, PA

Instrument ID: SSTRACE4	Effective Date: 01/16/19
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Analyte	IDL ug/l
Aluminum	13.7
Antimony	1.3
Arsenic	1.5
Barium	.3
Beryllium	.1
Bismuth	3.3
Boron	.8
Cadmium	.1
Calcium	2.3
Chromium	.5
Cobalt	.4
Copper	.8
Iron	4.4
Lead	1.1
Lithium	4.4
Magnesium	13.6
Manganese	.1
Molybdenum	.7
Nickel	.3
Phosphorus	2.4
Potassium	135.6
Selenium	1.8
Silicon	2.2
Silver	.5
Sodium	33.9
Sulfur	9.8
Strontium	.1
Thallium	1.3
Tin	.9
Titanium	.3
Tungsten	3.9
Vanadium	.3
Zinc	1.3
Zirconium	.2

The above applies to the following instrument runs:  
MA46414

6.6  
6

# Instrument Detection Limits

Job Number: JC85367  
Account: BBLNYS Arcadis  
Project: National Grid, Philly Coke, Philadelphia, PA

Instrument ID: SSTRACE5	Effective Date: 01/16/19
-------------------------	--------------------------

Analyte	IDL ug/l
Aluminum	13.3
Antimony	1.1
Arsenic	1.2
Barium	.2
Beryllium	.1
Bismuth	1.8
Boron	1.2
Cadmium	.2
Calcium	3.7
Chromium	.4
Cobalt	.3
Copper	1
Iron	2.4
Lead	1.5
Lithium	1.5
Magnesium	17
Manganese	.1
Molybdenum	.3
Nickel	.3
Phosphorus	2
Potassium	39.9
Selenium	1.8
Silicon	.9
Silver	.5
Sodium	13
Sulfur	3.5
Strontium	.2
Thallium	1.6
Tin	.6
Titanium	.6
Tungsten	1.1
Vanadium	.4
Zinc	.2
Zirconium	.2

The above applies to the following instrument runs:  
MA46419

6.6  
6

# Instrument Linear Ranges

**Job Number:** JC85367  
**Account:** BBLNYS Arcadis  
**Project:** National Grid, Philly Coke, Philadelphia, PA

<b>Instrument ID:</b> LEEMANHG7	<b>Effective Date:</b> 03/10/17
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Analyte	Linear Range ug/l
Mercury	5

The above applies to the following instrument runs:  
MA46407

6.6  
6

# Instrument Linear Ranges

Job Number: JC85367  
Account: BBLNYS Arcadis  
Project: National Grid, Philly Coke, Philadelphia, PA

Instrument ID: SSTRACE4	Effective Date: 07/16/18
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Analyte	Linear Range ug/l
Aluminum	300000
Antimony	8000
Arsenic	8000
Barium	8000
Beryllium	8000
Bismuth	8000
Boron	8000
Cadmium	8000
Calcium	200000
Chromium	8000
Cobalt	8000
Copper	8000
Iron	200000
Lead	8000
Lithium	8000
Magnesium	300000
Manganese	8000
Molybdenum	8000
Nickel	8000
Palladium	8000
Phosphorus	8000
Potassium	200000
Selenium	8000
Silicon	25000
Silver	625
Sodium	200000
Sulfur	100000
Strontium	8000
Thallium	8000
Tin	8000
Titanium	8000
Tungsten	8000
Vanadium	8000
Zinc	8000
Zirconium	8000

The above applies to the following instrument runs:  
MA46414

6.6  
6

# Instrument Linear Ranges

Job Number: JC85367  
Account: BBLNYS Arcadis  
Project: National Grid, Philly Coke, Philadelphia, PA

Instrument ID: SSTRACE5	Effective Date: 07/16/18
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Analyte	Linear Range ug/l
Aluminum	300000
Antimony	8000
Arsenic	8000
Barium	8000
Beryllium	8000
Bismuth	8000
Boron	8000
Cadmium	8000
Calcium	200000
Chromium	8000
Cobalt	8000
Copper	8000
Iron	200000
Lead	8000
Lithium	8000
Magnesium	300000
Manganese	8000
Molybdenum	8000
Nickel	8000
Palladium	8000
Phosphorus	8000
Potassium	200000
Selenium	8000
Silicon	25000
Silver	625
Sodium	200000
Sulfur	100000
Strontium	8000
Thallium	8000
Tin	8000
Titanium	8000
Tungsten	8000
Vanadium	8000
Zinc	8000
Zirconium	8000

The above applies to the following instrument runs:  
MA46419

6.6  
6



**Metals Analysis**

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**Raw Data**

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## MA46407

Method: ACCUTEST

Operator: Admin

Date of Analysis: 02 Apr 2019 09:46:19

Sample ID	Date	Type	Units	Conc.	μ Abs.	Wt.	Vol.
STDA - 1	02 Apr 2019 09:46:30	Std	ug/l	-	226	1.000	1.000
STDB - 1	02 Apr 2019 09:47:49	Std	ug/l	-	638	1.000	1.000
STDC - 1	02 Apr 2019 09:49:09	Std	ug/l	-	1944	1.000	1.000
STDD - 1	02 Apr 2019 09:50:45	Std	ug/l	-	4063	1.000	1.000
STDE - 1	02 Apr 2019 09:52:33	Std	ug/l	-	10029	1.000	1.000
STDF - 1	02 Apr 2019 09:54:27	Std	ug/l	-	21095	1.000	1.000
STDB - 1	02 Apr 2019 09:57:40	Std	ug/l	-	625	1.000	1.000
STDE - 1	02 Apr 2019 09:59:01	Std	ug/l	-	10070	1.000	1.000
STDB - 1	02 Apr 2019 10:02:49	Std	ug/l	-	997	1.000	1.000
STDE - 1	02 Apr 2019 10:04:07	Std	ug/l	-	9826	1.000	1.000
SAMPLECONF - 1	02 Apr 2019 10:07:51	CK STND	ug/l	(H)112.5%	3.3736	14036	1.000
ICV - 1	02 Apr 2019 10:11:08	CK STND	ug/l	100.5%	3.0143	12537	1.000
ICB - 1	02 Apr 2019 10:12:23	CK STND	ug/l	-0.0057	-62	1.000	1.000
CCV - 1	02 Apr 2019 10:14:32	CK STND	ug/l	94.4%	2.3609	9811	1.000
CCB - 1	02 Apr 2019 10:15:51	CK STND	ug/l	-0.0097	-79	1.000	1.000
CRI - 1	02 Apr 2019 10:17:56	CK STND	ug/l	77.7%	0.1554	610	1.000
MP13750-MB1 - 1	02 Apr 2019 10:35:17	SMPL	ug/l	0.0205	47	1.000	1.000
MP13750-B1 - 1	02 Apr 2019 10:36:33	SMPL	ug/l	1.9002	7889	1.000	1.000
MP13750-S1 - 1	02 Apr 2019 10:37:50	SMPL	ug/l	1.8391	7634	1.000	1.000
MP13750-S2 - 1	02 Apr 2019 10:39:52	SMPL	ug/l	1.8161	7538	1.000	1.000
JC85339-1F - 1	02 Apr 2019 10:41:53	SMPL	ug/l	-0.0661	-314	1.000	1.000
JC85339-2F - 1	02 Apr 2019 10:43:54	SMPL	ug/l	-0.0040	-55	1.000	1.000
JC85339-3F - 1	02 Apr 2019 10:45:11	SMPL	ug/l	-0.0071	-68	1.000	1.000
JC85339-4F - 1	02 Apr 2019 10:46:28	SMPL	ug/l	-0.0033	-52	1.000	1.000
CCV - 1	02 Apr 2019 10:47:45	CK STND	ug/l	94.9%	2.3736	9864	1.000
CCB - 1	02 Apr 2019 10:49:03	CK STND	ug/l	0.0039	-22	1.000	1.000
JC85339-5F - 1	02 Apr 2019 10:51:09	SMPL	ug/l	-0.0788	-367	1.000	1.000
JC85339-6F - 1	02 Apr 2019 10:52:28	SMPL	ug/l	-0.0033	-52	1.000	1.000
JC85339-7F - 1	02 Apr 2019 10:53:46	SMPL	ug/l	0.0085	-3	1.000	1.000
JC85339-8F - 1	02 Apr 2019 10:55:04	SMPL	ug/l	-0.0141	-97	1.000	1.000
JC85339-9F - 1	02 Apr 2019 10:56:23	SMPL	ug/l	0.0030	-26	1.000	1.000
JC85339-10F - 1	02 Apr 2019 10:57:39	SMPL	ug/l	0.0037	-23	1.000	1.000
JC85409-11 - 1	02 Apr 2019 10:58:56	SMPL	ug/l	7.1164	29650	1.000	1.000
JC85409-11F - 1	02 Apr 2019 11:00:12	SMPL	ug/l	1.7139	7112	1.000	1.000
JC85431-1 - 1	02 Apr 2019 11:02:32	SMPL	ug/l	-0.0670	-318	1.000	1.000
CCV - 1	02 Apr 2019 11:04:34	CK STND	ug/l	94.0%	2.3496	9764	1.000
CCB - 1	02 Apr 2019 11:05:52	CK STND	ug/l	0.0001	-38	1.000	1.000
JC85431-1F - 1	02 Apr 2019 11:07:58	SMPL	ug/l	-0.0692	-327	1.000	1.000
JC85431-2 - 1	02 Apr 2019 11:09:18	SMPL	ug/l	-0.0145	-99	1.000	1.000
JC85431-2F - 1	02 Apr 2019 11:10:35	SMPL	ug/l	-0.0026	-49	1.000	1.000
JC85498-1Q - 1	02 Apr 2019 11:11:52	SMPL	ug/l	0.0013	-33	1.000	1.000
JC85499-1Q - 1	02 Apr 2019 11:13:09	SMPL	ug/l	0.0027	-27	1.000	1.000
JC85500-1Q - 1	02 Apr 2019 11:14:27	SMPL	ug/l	0.0032	-25	1.000	1.000
MP13773-MB1 - 1	02 Apr 2019 11:15:46	SMPL	ug/l	0.0030	-26	1.000	1.000
MP13773-B1 - 1	02 Apr 2019 11:17:04	SMPL	ug/l	1.9702	8181	1.000	1.000
MP13773-S1 - 1	02 Apr 2019 11:18:21	SMPL	ug/l	1.8688	7758	1.000	1.000
SAMPLECONF - 1	02 Apr 2019 11:20:24	CK STND	ug/l	(L)89.8%	2.2446	9326	1.000
CCV - 1	02 Apr 2019 11:24:16	CK STND	ug/l	98.7%	2.4669	10253	1.000
CCB - 1	02 Apr 2019 11:25:33	CK STND	ug/l	-0.0088	-75	1.000	1.000
MP13773-S2 - 1	02 Apr 2019 11:27:39	SMPL	ug/l	1.9122	7939	1.000	1.000
JC85326-1 - 1	02 Apr 2019 11:28:58	SMPL	ug/l	-0.0613	-294	1.000	1.000
JC85326-1F - 1	02 Apr 2019 11:31:00	SMPL	ug/l	-0.0093	-77	1.000	1.000
JC85326-2 - 1	02 Apr 2019 11:32:17	SMPL	ug/l	0.0022	-29	1.000	1.000
JC85326-2F - 1	02 Apr 2019 11:33:33	SMPL	ug/l	-0.0069	-67	1.000	1.000
JC85326-3 - 1	02 Apr 2019 11:34:50	SMPL	ug/l	0.0099	3	1.000	1.000
JC85326-3F - 1	02 Apr 2019 11:36:07	SMPL	ug/l	-0.0066	-66	1.000	1.000
JC85326-4 - 1	02 Apr 2019 11:37:25	SMPL	ug/l	0.0092	0	1.000	1.000
JC85326-4F - 1	02 Apr 2019 11:38:43	SMPL	ug/l	-0.0011	-43	1.000	1.000
CCV - 1	02 Apr 2019 11:40:01	CK STND	ug/l	96.9%	2.4223	10067	1.000
CCB - 1	02 Apr 2019 11:41:18	CK STND	ug/l	-0.0090	-76	1.000	1.000
JC85326-5 - 1	02 Apr 2019 11:43:23	SMPL	ug/l	-0.0692	-327	1.000	1.000
JC85326-5F - 1	02 Apr 2019 11:44:43	SMPL	ug/l	-0.0071	-68	1.000	1.000
JC85326-6 - 1	02 Apr 2019 11:46:00	SMPL	ug/l	0.0051	-17	1.000	1.000
JC85326-6F - 1	02 Apr 2019 11:47:17	SMPL	ug/l	-0.0062	-64	1.000	1.000
JC85326-7 - 1	02 Apr 2019 11:48:34	SMPL	ug/l	0.0308	90	1.000	1.000
JC85326-7F - 1	02 Apr 2019 11:49:51	SMPL	ug/l	-0.0328	-175	1.000	1.000
JC85326-8 - 1	02 Apr 2019 11:51:09	SMPL	ug/l	0.0044	-20	1.000	1.000
JC85326-8F - 1	02 Apr 2019 11:52:26	SMPL	ug/l	0.0027	-27	1.000	1.000
JC85326-9 - 1	02 Apr 2019 11:53:43	SMPL	ug/l	0.0044	-20	1.000	1.000

MA46407

Method: ACCUTEST Operator: Admin Date of Analysis: 02 Apr 2019 09:46:19

Sample ID	Date	Type	Units	Conc.	μ Abs.	Wt.	Vol.
CCV - 1	02 Apr 2019 11:55:00	CK STND	ug/l	97.3% 2.4335	10114	1.000	1.000
CCB - 1	02 Apr 2019 11:56:18	CK STND	ug/l	-0.0021	-47	1.000	1.000
JC85326-9F - 1	02 Apr 2019 11:58:23	SMPL	ug/l	-0.0191	-118	1.000	1.000
JC85326-11 - 1	02 Apr 2019 11:59:42	SMPL	ug/l	-0.0527	-258	1.000	1.000
JC85326-11F - 1	02 Apr 2019 12:01:02	SMPL	ug/l	0.0073	-8	1.000	1.000
MP13774-MB1 - 1	02 Apr 2019 12:02:20	SMPL	ug/l	0.0368	115	1.000	1.000
MP13774-B1 - 1	02 Apr 2019 12:03:39	SMPL	ug/l	1.8923	7856	1.000	1.000
MP13774-S1 - 1	02 Apr 2019 12:04:56	SMPL	ug/l	1.8599	7721	1.000	1.000
MP13774-S2 - 1	02 Apr 2019 12:06:58	SMPL	ug/l	1.8671	7751	1.000	1.000
JC85487-1F - 1	02 Apr 2019 12:09:01	SMPL	ug/l	-0.0131	-93	1.000	1.000
JC85487-1 - 1	02 Apr 2019 12:11:03	SMPL	ug/l	0.0284	80	1.000	1.000
CCV - 1	02 Apr 2019 12:12:22	CK STND	ug/l	92.3% 2.3072	9587	1.000	1.000
CCB - 1	02 Apr 2019 12:13:42	CK STND	ug/l	-0.0143	-98	1.000	1.000
JC85487-2 - 1	02 Apr 2019 12:15:47	SMPL	ug/l	48.5091	202334	1.000	1.000
JC85487-2F - 1	02 Apr 2019 12:17:06	SMPL	ug/l	41.6011	173515	1.000	1.000
SAMPLECONF - 1	02 Apr 2019 12:20:01	SMPL	ug/l	-0.1883	-824	1.000	1.000
JC85487-3F - 1	02 Apr 2019 12:22:41	SMPL	ug/l	-0.0742	-348	1.000	1.000
JC85487-4 - 1	02 Apr 2019 12:24:16	SMPL	ug/l	48.6330	202851	1.000	1.000
JC85487-4F - 1	02 Apr 2019 12:25:37	SMPL	ug/l	47.4465	197901	1.000	1.000
JC85487-5 - 1	02 Apr 2019 12:28:31	SMPL	ug/l	1.0766	4453	1.000	1.000
JC85487-5F - 1	02 Apr 2019 12:33:05	SMPL	ug/l	0.2501	1005	1.000	1.000
JC85487-6 - 1	02 Apr 2019 12:41:16	SMPL	ug/l	HIGH	310029	1.000	1.000
CCV - 1	02 Apr 2019 12:52:06	CK STND	ug/l	98.7% 2.4666	10252	1.000	1.000
CCB - 1	02 Apr 2019 12:53:23	CK STND	ug/l	-0.0069	-67	1.000	1.000
JC85487-6F - 1	02 Apr 2019 12:55:29	SMPL	ug/l	62.6405	13028	1.000	20.000
JC85487-7 - 1	02 Apr 2019 12:56:48	SMPL	ug/l	-0.0433	-219	1.000	1.000
JC85487-7F - 1	02 Apr 2019 12:59:00	SMPL	ug/l	-0.0428	-217	1.000	1.000
JC85487-8 - 1	02 Apr 2019 13:00:19	SMPL	ug/l	2.6747	11120	1.000	1.000
JC85487-8F - 1	02 Apr 2019 13:01:37	SMPL	ug/l	2.4410	10145	1.000	1.000
JC85487-9 - 1	02 Apr 2019 13:03:44	SMPL	ug/l	7.8928	32889	1.000	1.000
JC85487-9F - 1	02 Apr 2019 13:05:50	SMPL	ug/l	7.4086	30869	1.000	1.000
JC85374-1 - 1	02 Apr 2019 13:08:10	SMPL	ug/l	-0.0692	-327	1.000	1.000
JC85494-6 - 1	02 Apr 2019 13:10:30	SMPL	ug/l	-0.0364	-190	1.000	1.000
CCV - 1	02 Apr 2019 13:11:49	CK STND	ug/l	95.7% 2.3935	9947	1.000	1.000
CCB - 1	02 Apr 2019 13:13:07	CK STND	ug/l	-0.0198	-121	1.000	1.000
SAMPLECONF - 1	02 Apr 2019 13:15:10	SMPL	ug/l	-0.0781	-364	1.000	1.000
SAMPLECONF - 1	02 Apr 2019 13:16:31	SMPL	ug/l	1.9443	8073	1.000	1.000
SAMPLECONF - 1	02 Apr 2019 13:17:49	SMPL	ug/l	2.9796	12392	1.000	1.000
SAMPLECONF - 1	02 Apr 2019 13:19:51	SMPL	ug/l	2.8305	11770	1.000	1.000
SAMPLECONF - 1	02 Apr 2019 13:22:00	SMPL	ug/l	1.0169	4204	1.000	1.000
SAMPLECONF - 1	02 Apr 2019 13:24:09	SMPL	ug/l	5.6084	23359	1.000	1.000
SAMPLECONF - 1	02 Apr 2019 13:26:08	SMPL	ug/l	3.8662	16091	1.000	1.000
SAMPLECONF - 1	02 Apr 2019 13:28:24	SMPL	ug/l	1.2590	5214	1.000	1.000
SAMPLECONF - 1	02 Apr 2019 13:30:34	SMPL	ug/l	30.0417	125291	1.000	1.000
SAMPLECONF - 1	02 Apr 2019 13:32:33	CK STND	ug/l	(L)88.6% 2.2149	9202	1.000	1.000
SAMPLECONF - 1	02 Apr 2019 13:37:35	CK STND	ug/l	(L)88.6% 2.2144	9200	1.000	1.000
CCV - 1	02 Apr 2019 13:45:28	CK STND	ug/l	105.4% 2.6339	10950	1.000	1.000
CCB - 1	02 Apr 2019 13:46:45	CK STND	ug/l	-0.0028	-50	1.000	1.000
MP13776-MB1 - 1	02 Apr 2019 13:48:51	SMPL	ug/l	-0.0675	-320	1.000	1.000
MP13776-B1 - 1	02 Apr 2019 13:50:12	SMPL	ug/l	1.9105	7932	1.000	1.000
MP13776-S1 - 1	02 Apr 2019 13:51:29	SMPL	ug/l	2.9266	12171	1.000	1.000
MP13776-S2 - 1	02 Apr 2019 13:53:33	SMPL	ug/l	2.7511	11439	1.000	1.000
JC85409-1F - 1	02 Apr 2019 13:55:43	SMPL	ug/l	0.9896	4090	1.000	1.000
JC85409-1 - 1	02 Apr 2019 13:57:52	SMPL	ug/l	5.4069	11240	1.000	2.000
JC85409-2 - 1	02 Apr 2019 13:59:49	SMPL	ug/l	3.7497	15605	1.000	1.000
JC85409-2F - 1	02 Apr 2019 14:01:58	SMPL	ug/l	0.7707	3177	1.000	1.000
JC85409-3 - 1	02 Apr 2019 14:04:09	SMPL	ug/l	29.2540	12166	1.000	10.000
CCV - 1	02 Apr 2019 14:05:42	CK STND	ug/l	104.0% 2.6006	10811	1.000	1.000
CCB - 1	02 Apr 2019 14:07:52	CK STND	ug/l	-0.0071	-68	1.000	1.000
JC85409-3F - 1	02 Apr 2019 14:09:58	SMPL	ug/l	22.1641	92427	1.000	1.000
JC85409-4 - 1	02 Apr 2019 14:11:18	SMPL	ug/l	0.0703	255	1.000	1.000
JC85409-4F - 1	02 Apr 2019 14:13:53	SMPL	ug/l	-0.0445	-224	1.000	1.000
JC85409-5 - 1	02 Apr 2019 14:15:33	SMPL	ug/l	4.7474	19767	1.000	1.000
JC85409-5F - 1	02 Apr 2019 14:16:54	SMPL	ug/l	0.9829	4062	1.000	1.000
JC85409-6 - 1	02 Apr 2019 14:19:09	SMPL	ug/l	0.0252	67	1.000	1.000
JC85409-6F - 1	02 Apr 2019 14:21:07	SMPL	ug/l	-0.0407	-208	1.000	1.000
JC85409-7 - 1	02 Apr 2019 14:22:27	SMPL	ug/l	58.1930	242734	1.000	1.000
JC85409-7F - 1	02 Apr 2019 14:23:47	SMPL	ug/l	39.6847	165520	1.000	1.000
CCV - 1	02 Apr 2019 14:26:44	CK STND	ug/l	101.5% 2.5371	10546	1.000	1.000

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Method: ACCUTEST

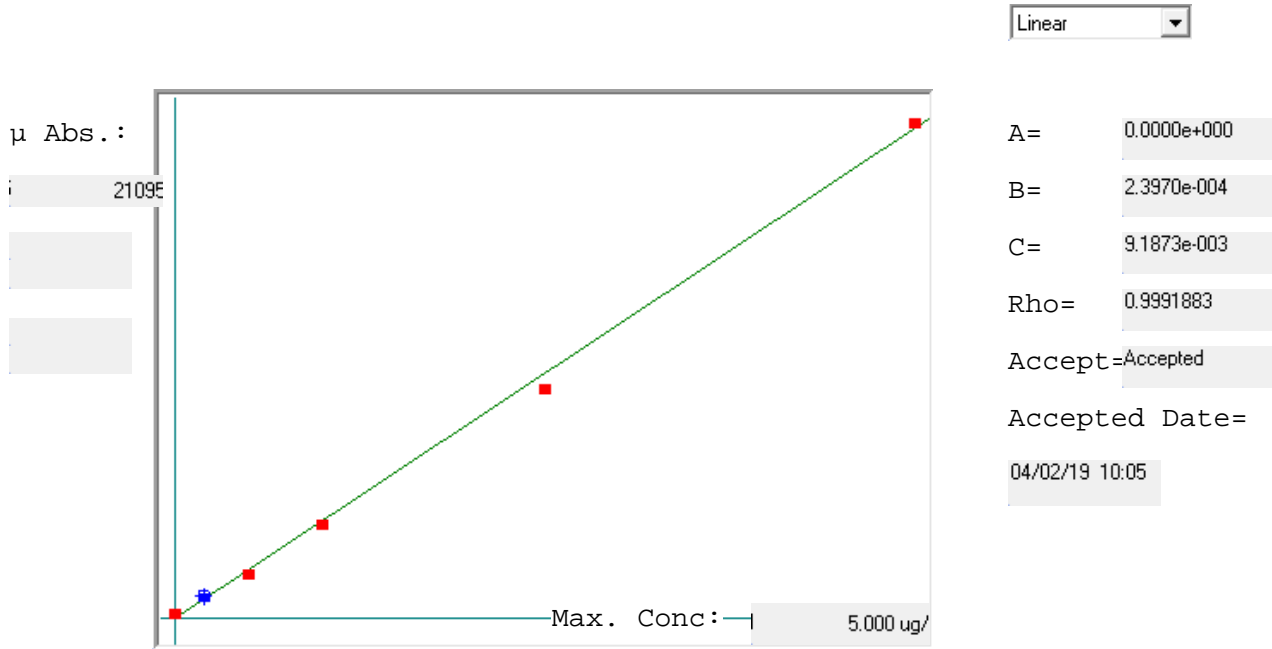
Operator: Admin

Date of Analysis: 02 Apr 2019 09:46:19

Sample ID	Date	Type	Units	Conc.	μ Abs.	Wt.	Vol.
CCB - 1	02 Apr 2019 14:29:35	CK STND	ug/l	-0.0443	-223	1.000	1.000
JC85409-8 - 1	02 Apr 2019 14:31:43	SMPL	ug/l	-0.0922	-423	1.000	1.000
JC85409-8F - 1	02 Apr 2019 14:33:04	SMPL	ug/l	-0.0311	-168	1.000	1.000
JC85409-11 - 1	02 Apr 2019 14:34:21	SMPL	ug/l	7.0119	14588	1.000	2.000
JC85409-11F - 1	02 Apr 2019 14:35:39	SMPL	ug/l	1.7705	7348	1.000	1.000
JC85487-2 - 1	02 Apr 2019 14:37:50	SMPL	ug/l	46.2545	9610	1.000	20.000
JC85487-2F - 1	02 Apr 2019 14:39:54	SMPL	ug/l	41.3837	8594	1.000	20.000
SAMPLECONF - 1	02 Apr 2019 14:42:03	SMPL	ug/l	46.6908	9701	1.000	20.000
SAMPLECONF - 1	02 Apr 2019 14:44:11	SMPL	ug/l	50.6171	10520	1.000	20.000
JC85487-5 - 1	02 Apr 2019 14:46:19	SMPL	ug/l	1.2235	5066	1.000	1.000
CCV - 1	02 Apr 2019 14:48:28	CK STND	ug/l	100.9% 2.5229	10487	1.000	1.000
CCB - 1	02 Apr 2019 14:50:28	CK STND	ug/l	-0.0045	-57	1.000	1.000
JC85487-5F - 1	02 Apr 2019 14:52:35	SMPL	ug/l	0.1923	764	1.000	1.000
JC85487-6 - 1	02 Apr 2019 14:53:54	SMPL	ug/l	136.0708	11315	1.000	50.000
JC85487-3 - 1	02 Apr 2019 14:55:35	SMPL	ug/l	0.0583	205	1.000	1.000
JC85487-8 - 1	02 Apr 2019 14:57:45	SMPL	ug/l	2.7032	11239	1.000	1.000
JC85487-8F - 1	02 Apr 2019 14:59:16	SMPL	ug/l	2.4580	10216	1.000	1.000
JC85487-9 - 1	02 Apr 2019 15:01:24	SMPL	ug/l	7.5282	15665	1.000	2.000
JC85487-9F - 1	02 Apr 2019 15:03:31	SMPL	ug/l	6.7003	13938	1.000	2.000
JC85409-9 - 1	02 Apr 2019 15:05:41	SMPL	ug/l	55.0283	229531	1.000	1.000
JC85409-9F - 1	02 Apr 2019 15:07:55	SMPL	ug/l	34.4410	143644	1.000	1.000
CCV - 1	02 Apr 2019 15:13:22	CK STND	ug/l	102.3% 2.5582	10634	1.000	1.000
CCB - 1	02 Apr 2019 15:14:41	CK STND	ug/l	-0.0270	-151	1.000	1.000
JC85409-10 - 1	02 Apr 2019 15:16:49	SMPL	ug/l	6.5900	27454	1.000	1.000
JC85409-10F - 1	02 Apr 2019 15:18:07	SMPL	ug/l	4.3531	18122	1.000	1.000
MP13777-MB1 - 1	02 Apr 2019 15:20:26	SMPL	ug/l	-0.0745	-349	1.000	1.000
MP13777-B1 - 1	02 Apr 2019 15:22:41	SMPL	ug/l	1.8983	7881	1.000	1.000
MP13777-S1 - 1	02 Apr 2019 15:23:59	SMPL	ug/l	1.8477	7670	1.000	1.000
MP13777-S2 - 1	02 Apr 2019 15:26:02	SMPL	ug/l	1.8839	7821	1.000	1.000
JC85367-1F - 1	02 Apr 2019 15:28:06	SMPL	ug/l	-0.0493	-244	1.000	1.000
JC85367-2F - 1	02 Apr 2019 15:30:08	SMPL	ug/l	-0.0160	-105	1.000	1.000
JC85367-3F - 1	02 Apr 2019 15:31:26	SMPL	ug/l	-0.0081	-72	1.000	1.000
CCV - 1	02 Apr 2019 15:32:44	CK STND	ug/l	100.8% 2.5189	10470	1.000	1.000
CCB - 1	02 Apr 2019 15:34:01	CK STND	ug/l	-0.0033	-52	1.000	1.000
JC85367-4F - 1	02 Apr 2019 15:36:08	SMPL	ug/l	-0.0627	-300	1.000	1.000
JC85445-1F - 1	02 Apr 2019 15:37:28	SMPL	ug/l	-0.0371	-193	1.000	1.000
JC85445-2F - 1	02 Apr 2019 15:38:45	SMPL	ug/l	-0.0222	-131	1.000	1.000
JC85445-3F - 1	02 Apr 2019 15:40:04	SMPL	ug/l	-0.0014	-44	1.000	1.000
JC85493-6A - 1	02 Apr 2019 15:41:22	SMPL	ug/l	-0.0083	-73	1.000	1.000
JC85357-1 - 1	02 Apr 2019 15:42:41	SMPL	ug/l	-0.0109	-84	1.000	1.000
JC85357-2 - 1	02 Apr 2019 15:43:59	SMPL	ug/l	-0.0059	-63	1.000	1.000
CCV - 1	02 Apr 2019 15:45:17	CK STND	ug/l	100.8% 2.5189	10470	1.000	1.000
CCB - 1	02 Apr 2019 15:46:35	CK STND	ug/l	-0.0064	-65	1.000	1.000
JC85409-3F - 1	02 Apr 2019 15:48:41	SMPL	ug/l	21.1281	8776	1.000	10.000
JC85409-4 - 1	02 Apr 2019 15:50:01	SMPL	ug/l	0.1602	630	1.000	1.000
JC85409-5 - 1	02 Apr 2019 15:52:07	SMPL	ug/l	4.7213	19658	1.000	1.000
JC85409-5F - 1	02 Apr 2019 15:53:45	SMPL	ug/l	0.9316	3848	1.000	1.000
JC85409-7 - 1	02 Apr 2019 15:56:00	SMPL	ug/l	58.6327	12192	1.000	20.000
JC85409-7F - 1	02 Apr 2019 15:57:57	SMPL	ug/l	38.2772	7946	1.000	20.000
CCV - 1	02 Apr 2019 16:00:06	CK STND	ug/l	101.2% 2.5304	10518	1.000	1.000
CCB - 1	02 Apr 2019 16:02:09	CK STND	ug/l	-0.0121	-89	1.000	1.000
JC85487-4 - 1	02 Apr 2019 16:05:10	SMPL	ug/l	48.7186	10124	1.000	20.000
JC85487-4F - 1	02 Apr 2019 16:06:28	SMPL	ug/l	49.1357	10211	1.000	20.000
JC85409-9 - 1	02 Apr 2019 16:17:33	SMPL	ug/l	52.6450	10943	1.000	20.000
JC85409-9F - 1	02 Apr 2019 16:18:51	SMPL	ug/l	30.4294	6309	1.000	20.000
JC85409-10 - 1	02 Apr 2019 16:21:00	SMPL	ug/l	6.3106	13125	1.000	2.000
JC85409-9F - 1	02 Apr 2019 16:23:55	SMPL	ug/l	30.6499	6355	1.000	20.000
JC85409-2F - 1	02 Apr 2019 16:25:16	SMPL	ug/l	1.2530	5189	1.000	1.000
CRI - 1	02 Apr 2019 16:27:20	CK STND	ug/l	82.0% 0.1640	646	1.000	1.000
CCV - 1	02 Apr 2019 16:29:17	CK STND	ug/l	98.1% 2.4537	10198	1.000	1.000
CCB - 1	02 Apr 2019 16:30:55	CK STND	ug/l	0.0006	-36	1.000	1.000

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ACCUTEST



Std ID	Conc.	Calc.	Dev.	Mean	SD or %RSD	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
STDA	0.000	0.063	0.063	226	0.000	226				
STDB	0.200	0.248	0.048	997	0.0 %	997				
STDC	0.500	0.475	-0.025	1944	0.0 %	1944				
STDD	1.000	0.983	-0.017	4063	0.0 %	4063				
STDE	2.500	2.365	-0.135	9826	0.0 %	9826				
STDF	5.000	5.066	0.066	21095	0.0 %	21095				

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Sample Name: STDA Acquired: 4/2/2019 18:54:52 Type: Cal  
 Method: SGS No Valve3(v343) Mode: IR Corr. Factor: 1.000000  
 User: admin Custom ID1: : :  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.0032	.0002	.0009	-0.004	-0.000	.0018	.0001	.0005	-0.015
Stddev	.0003	.0001	.0001	.0001	.0000	.0000	.0000	.0001	.0000
%RSD	8.599	34.37	13.42	30.12	114.2	2.364	6.689	20.21	1.498
#1	.0029	.0002	.0011	-.0004	-.0000	.0018	.0001	.0004	-.0015
#2	.0032	.0001	.0009	-.0003	-.0000	.0018	.0001	.0006	-.0015
#3	.0034	.0001	.0008	-.0005	-.0000	.0018	.0001	.0006	-.0014
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.0002	.0004	-0.0004	-0.0001	-0.0001	.0003	.0005	.0014	.0043
Stddev	.0000	.0001	.0001	.0000	.0001	.0001	.0002	.0003	.0001
%RSD	6.959	15.27	20.68	63.44	121.9	42.07	36.08	20.37	1.876
#1	.0002	.0004	-.0003	-.0001	-.0001	.0004	.0004	.0011	.0042
#2	.0002	.0003	-.0004	-.0001	.0000	.0002	.0008	.0014	.0044
#3	.0002	.0005	-.0005	-.0000	-.0001	.0002	.0005	.0017	.0044
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.0002	-0.0001	.0041	.0061	.0008	-0.0003	.0035	.0003	-0.0021
Stddev	.0001	.0001	.0004	.0003	.0000	.0001	.0001	.0000	.0002
%RSD	45.95	115.9	10.13	5.677	2.360	23.26	2.774	15.96	8.147
#1	.0002	-.0002	.0044	.0059	.0009	-.0002	.0035	.0003	-.0019
#2	.0001	.0000	.0036	.0065	.0009	-.0003	.0036	.0004	-.0022
#3	.0001	-.0001	.0043	.0058	.0008	-.0003	.0034	.0003	-.0021
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S		
Avg	.0001	.0001	-0.0003	-0.0007	-0.0012	.0002	-0.0031		
Stddev	.0000	.0004	.0001	.0001	.0003	.0002	.0001		
%RSD	43.60	710.7	19.93	9.115	21.56	83.41	4.230		
#1	.0001	-.0003	-.0004	-.0007	-.0011	.0003	-.0031		
#2	.0001	.0001	-.0004	-.0007	-.0015	.0002	-.0030		
#3	.0002	.0004	-.0003	-.0008	-.0010	.0000	-.0033		

Sample Name: STDA Acquired: 4/2/2019 18:54:52 Type: Cal  
 Method: SGS No Valve3(v343) Mode: IR Corr. Factor: 1.000000  
 User: admin Custom ID1: : :  
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	154730.	28102.	4069.2	7498.2
Stddev	327.	80.	15.3	22.0
%RSD	.21107	.28583	.37588	.29300
#1	154840.	28101.	4069.9	7492.5
#2	154370.	28183.	4053.5	7479.7
#3	154990.	28023.	4084.0	7522.5

Sample Name: STDB Acquired: 4/2/2019 19:00:05 Type: Cal  
 Method: SGS No Valve3(v343) Mode: IR Corr. Factor: 1.000000  
 User: admin Custom ID1: : :  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7.365	11.81	5.358	3.168	4.090	1.105	2.924	2.184	0.604
Stddev	.056	.12	.011	.006	.0008	.006	.008	.007	.0001
%RSD	.7597	.9911	.2057	.2032	.1920	.5635	.2743	.3248	.1917
#1	7.420	11.72	5.347	3.162	4.082	1.106	2.915	2.180	.0605
#2	7.367	11.78	5.369	3.175	4.097	1.111	2.929	2.193	.0605
#3	7.308	11.95	5.357	3.166	4.091	1.098	2.929	2.181	.0603
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.6490	4.733	4.202	2.543	8.125	3.275	.7101	2.973	5.268
Stddev	.0019	.009	.0005	.0009	.0008	.0001	.0015	.007	.018
%RSD	.2863	.1899	.1147	.3641	.0928	.0389	.2054	.2339	.3331
#1	.6479	4.729	4.202	2.533	8.120	3.275	.7084	2.980	5.288
#2	.6511	4.744	4.198	2.548	8.134	3.273	.7109	2.967	5.255
#3	.6480	4.728	4.207	2.549	8.121	3.276	.7109	2.971	5.261
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2.832	4.793	1.399	6.007	9.754	3.488	2.675	7.014	15.03
Stddev	.005	.0018	.005	.017	.0024	.003	.005	.0016	.22
%RSD	.1867	.3841	.3522	.2771	.2433	.0859	.1769	.2346	1.460
#1	2.829	4.810	1.399	6.011	9.727	3.485	2.669	.6997	15.03
#2	2.829	4.774	1.404	6.021	9.773	3.490	2.678	.7030	15.25
#3	2.838	4.794	1.394	5.989	9.762	3.490	2.677	.7016	14.81
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S		
Avg	.7380	1.649	1.560	1.939	1.057	2.341	.4655		
Stddev	.0015	.003	.007	.0007	.002	.004	.0012		
%RSD	.2095	.1637	.4257	.3512	.1521	.1555	.2569		
#1	.7366	1.646	1.557	.1931	1.055	2.345	.4641		
#2	.7397	1.650	1.568	.1942	1.058	2.338	.4660		
#3	.7376	1.651	1.556	.1944	1.057	2.339	.4664		

Sample Name: STDB Acquired: 4/2/2019 19:00:05 Type: Cal  
 Method: SGS No Valve3(v343) Mode: IR Corr. Factor: 1.000000  
 User: admin Custom ID1: : :  
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	144970.	27778.	3893.0	6704.5
Stddev	394.	86.	3.7	12.8
%RSD	.27206	.30883	.09407	.19029
#1	145270.	27685.	3896.4	6715.3
#2	144530.	27794.	3889.1	6690.4
#3	145130.	27855.	3893.4	6707.7

Sample Name: cvconf Acquired: 4/2/2019 19:05:29 Type: QC
Method: SGS No Vlave3(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: : :
Comment:

Table with 10 columns: Elem, Units, Avg, Stddev, %RSD. Rows include Ba4554, Be3130, Cd2288, Co2286, Cr2677, Cu3247, Mn2576, Ni2316, Ag3280 and #1-#3.

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value Range

Table with 10 columns: Elem, Units, Avg, Stddev, %RSD. Rows include V\_2924, Zn2062, As1890, Tl1908, Pb2203, Se1960, Sb2068, Al3961, Ca3179 and #1-#3.

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value Range

Table with 10 columns: Elem, Units, Avg, Stddev, %RSD. Rows include Fe2599, Mg2790, K\_7664, Na5895, B\_2089, Mo2020, Si2124, Sn1899, Sr4077 and #1-#3.

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value Range

Sample Name: cvconf Acquired: 4/2/2019 19:05:29 Type: QC
Method: SGS No Vlave3(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: : :
Comment:

Table with 10 columns: Elem, Units, Avg, Stddev, %RSD. Rows include Ti3349, W\_2079, Zr3391, S\_1820, Bi2230, Li6707, P\_1774 and #1-#3.

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value Range

Table with 10 columns: Int. Std. Units, Avg, Stddev, %RSD. Rows include Y\_3600, Y\_3710, Y\_2243, In2306 and #1-#3.

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Sample Name: cbcconf Acquired: 4/2/2019 19:10:20 Type: QC
Method: SGS No Vlave3(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: : :
Comment:

Table with 10 columns: Elem, Units, Avg, Stddev, %RSD. Rows include Ba4554, Be3130, Cd2288, Co2286, Cr2677, Cu3247, Mn2576, Ni2316, Ag3280 and #1-#3.

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit Low Limit

Table with 10 columns: Elem, Units, Avg, Stddev, %RSD. Rows include V\_2924, Zn2062, As1890, Tl1908, Pb2203, Se1960, Sb2068, Al3961, Ca3179 and #1-#3.

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit Low Limit

Table with 10 columns: Elem, Units, Avg, Stddev, %RSD. Rows include Fe2599, Mg2790, K\_7664, Na5895, B\_2089, Mo2020, Si2124, Sn1899, Sr4077 and #1-#3.

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: cbcconf Acquired: 4/2/2019 19:10:20 Type: QC
Method: SGS No Vlave3(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: : :
Comment:

Table with 10 columns: Elem, Units, Avg, Stddev, %RSD. Rows include Ti3349, W\_2079, Zr3391, S\_1820, Bi2230, Li6707, P\_1774 and #1-#3.

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
High Limit Low Limit

Table with 10 columns: Int. Std. Units, Avg, Stddev, %RSD. Rows include Y\_3600, Y\_3710, Y\_2243, In2306 and #1-#3.

Sample Name: icv 1 Acquired: 4/2/2019 19:15:38 Type: QC  
Method: SGS No Vlave3(v343) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: : :  
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.979	1.994	1.969	1.997	1.953	1.914	2.008	1.983	2.419
Stddev	.019	.019	.011	.007	.008	.011	.010	.007	.0013
%RSD	.9784	.9335	.5810	.3529	.4091	.5686	.5197	.3711	.5356

#1	2.001	2.015	1.962	1.991	1.956	1.917	2.012	1.976	2.419
#2	1.965	1.980	1.964	1.994	1.944	1.902	1.996	1.982	2.406
#3	1.971	1.986	1.982	2.005	1.960	1.923	2.015	1.990	2.432

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
Value  
Range

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.956	1.977	1.926	2.020	1.985	1.939	1.926	38.42	39.17
Stddev	.012	.007	.011	.009	.012	.008	.013	.45	.46
%RSD	.5947	.3795	.5924	.4306	.6180	.4170	.6956	1.178	1.165

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
Value  
Range

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	39.22	38.77	38.51	38.78	1.980	1.959	4.987	1.969	1.990
Stddev	.20	.36	.42	.35	.013	.011	.029	.009	.017
%RSD	.5197	.9397	1.103	.9127	.6724	.5560	.5786	.4611	.8588

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
Value  
Range

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Sample Name: icv 1 Acquired: 4/2/2019 19:15:38 Type: QC  
Method: SGS No Vlave3(v343) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: : :  
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.952	1.943	1.925	1.874	1.921	1.921	1.972
Stddev	.009	.009	.012	.008	.014	.020	.012
%RSD	.4381	.4573	.6004	.4233	.7022	1.044	.6226

#1	1.954	1.938	1.927	1.869	1.911	1.944	1.967
#2	1.943	1.937	1.912	1.870	1.916	1.906	1.962
#3	1.960	1.953	1.934	1.883	1.936	1.913	1.985

Check ? Chk Pass Chk Pass Chk Pass Chk Fail Chk Pass Chk Pass Chk Pass  
Value  
Range  
2.000  
-5.000%

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	149240.	28379.	4005.5	6926.5
Stddev	725.	224.	19.8	23.9
%RSD	.48573	.79027	.49406	.34505

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

#1	149050.	28124.	4016.7	6943.9
#2	150040.	28467.	4017.2	6936.4
#3	148630.	28546.	3982.7	6899.3

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Sample Name: icb 7 Acquired: 4/2/2019 19:20:28 Type: QC  
Method: SGS No Vlave3(v343) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: : :  
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.000	.0000	.0001	.0000	-0.001	.0000	.0000	.0002	.0001
Stddev	.0001	.0000	.0002	.0001	.0001	.0000	.0000	.0001	.0003
%RSD	1069.	69.54	238.8	273.7	88.32	88.74	141.8	68.07	203.5

#1	-0.001	.0000	.0003	.0001	-0.002	.0001	.0000	.0002	.0004
#2	-0.000	.0000	.0002	.0002	-0.000	.0000	.0000	.0003	.0002
#3	.0001	.0000	-.0002	-.0001	-.0003	.0000	.0000	.0000	-.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	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.000	.0001	-0.005	-0.002	-0.000	.0001	.0013	.0031	.0011
Stddev	.0002	.0002	.0005	.0011	.0001	.0017	.0010	.0016	.0020
%RSD	806.4	309.1	98.78	491.6	268.2	2180.	82.71	51.98	173.8

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
High Limit  
Low Limit

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0010	.0130	-0.0202	-0.0376	.0017	.0001	.0004	-0.0000	-0.0000
Stddev	.0010	.0105	.0072	.0040	.0010	.0001	.0005	.0004	.0000
%RSD	107.8	80.89	35.45	10.76	56.47	94.73	127.7	1193.	116.8

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
High Limit  
Low Limit

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Sample Name: icb 7 Acquired: 4/2/2019 19:20:28 Type: QC  
Method: SGS No Vlave3(v343) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: : :  
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001	.0014	-0.0000	-0.0019	.0010	.0005	-0.0005
Stddev	.0001	.0001	.0000	.0016	.0008	.0016	.0010
%RSD	111.9	9.935	112.3	83.82	73.93	334.8	196.1

#1	.0003	.0015	-0.0000	-0.0036	.0006	-.0014	-.0005
#2	.0001	.0012	-0.0000	-0.0018	.0006	.0015	.0005
#3	-0.0000	.0015	.0000	-0.0004	.0019	.0013	-.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.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	154880.	28147.	4087.5	7525.5
Stddev	374.	152.	17.2	29.4
%RSD	.24167	.53934	.42109	.39110

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

#1	154600.	27979.	4073.8	7501.1
#2	154730.	28274.	4081.8	7517.2
#3	155300.	28188.	4106.8	7558.2

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Sample Name: ICCV 1 Acquired: 4/2/2019 19:26:32 Type: QC  
 Method: SGS No Valve3(v343) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: :  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>2.004</b>	<b>2.029</b>	<b>2.007</b>	<b>2.005</b>	<b>2.012</b>	<b>1.953</b>	<b>2.053</b>	<b>2.037</b>	<b>2.449</b>
Stddev	.004	.005	.004	.004	.001	.007	.003	.002	.0004
%RSD	.1964	.2712	.1835	.1957	.0715	.3847	.1587	.1178	.1669
#1	1.999	2.023	2.004	2.000	2.012	1.947	2.051	2.034	2.453
#2	2.003	2.029	2.013	2.007	2.010	1.946	2.049	2.039	2.449
#3	2.008	2.036	2.007	2.006	2.014	1.961	2.055	2.037	2.452
#4	2.006	2.028	2.007	2.009	2.013	1.957	2.055	2.039	2.444

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
 Value Range

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>1.993</b>	<b>2.036</b>	<b>1.987</b>	<b>2.071</b>	<b>2.039</b>	<b>1.988</b>	<b>2.010</b>	<b>39.13</b>	<b>39.76</b>
Stddev	.005	.003	.003	.002	.005	.005	.004	.11	.12
%RSD	.2316	.1423	.1477	.1056	.2633	.2399	.2112	.2786	.3017
#1	1.990	2.033	1.983	2.072	2.034	1.981	2.007	38.98	39.61
#2	1.987	2.040	1.987	2.068	2.043	1.991	2.016	39.13	39.77
#3	1.997	2.038	1.989	2.072	2.044	1.991	2.007	39.25	39.91
#4	1.996	2.035	1.989	2.072	2.034	1.986	2.011	39.14	39.76

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
 Value Range

Sample Name: ICCV 1 Acquired: 4/2/2019 19:26:32 Type: QC  
 Method: SGS No Valve3(v343) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: :  
 Comment:

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>39.99</b>	<b>39.57</b>	<b>38.95</b>	<b>39.34</b>	<b>2.031</b>	<b>2.032</b>	<b>5.136</b>	<b>2.048</b>	<b>2.017</b>
Stddev	.08	.15	.18	.14	.005	.002	.011	.004	.006
%RSD	.2036	.3692	.4715	.3602	.2602	.0825	.2090	.1924	.2975
#1	39.92	39.38	38.85	39.24	2.026	2.030	5.122	2.045	2.011
#2	39.96	39.57	38.81	39.29	2.036	2.033	5.145	2.053	2.014
#3	40.11	39.74	39.21	39.55	2.027	2.034	5.133	2.045	2.025
#4	39.98	39.61	38.92	39.30	2.035	2.032	5.145	2.049	2.017

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
 Value Range

Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>2.015</b>	<b>2.012</b>	<b>1.994</b>	<b>1.964</b>	<b>2.008</b>	<b>2.013</b>	<b>1.983</b>
Stddev	.003	.004	.007	.003	.007	.005	.003
%RSD	.1309	.2041	.3293	.1730	.3453	.2327	.1599
#1	2.014	2.012	1.990	1.960	2.003	2.006	1.982
#2	2.011	2.014	1.988	1.962	2.013	2.011	1.982
#3	2.018	2.007	2.000	1.968	2.000	2.017	1.980
#4	2.016	2.017	2.000	1.964	2.014	2.016	1.987

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
 Value Range

7.2  
7

Sample Name: ICCV 1 Acquired: 4/2/2019 19:26:32 Type: QC  
 Method: SGS No Valve3(v343) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: :  
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>149040.</b>	<b>28085.</b>	<b>3995.8</b>	<b>6897.0</b>
Stddev	274.	160.	7.0	10.8
%RSD	.18385	.57026	.17457	.15673
#1	148980.	28138.	4005.5	6913.0
#2	149340.	28169.	3989.6	6892.2
#3	148700.	27846.	3995.8	6893.2
#4	149160.	28185.	3992.4	6889.5

Sample Name: CCB 7 Acquired: 4/2/2019 19:36:50 Type: QC  
 Method: SGS No Valve3(v343) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: :  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.0002</b>	<b>.0001</b>	<b>.0002</b>	<b>.0001</b>	<b>.0000</b>	<b>.0001</b>	<b>.0000</b>	<b>.0001</b>	<b>-0.0002</b>
Stddev	.0000	.0000	.0001	.0001	.0001	.0001	.0000	.0003	.0001
%RSD	4.517	34.13	44.87	45.07	279.2	241.2	28.13	445.1	39.41
#1	.0002	.0000	.0002	.0001	-0.001	-0.001	.0001	.0002	-0.0003
#2	.0002	.0001	.0002	.0002	.0000	.0001	.0001	-0.0003	-0.0001
#3	.0002	.0001	.0001	.0001	.0001	.0002	.0000	.0002	-0.0003

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
 High Limit  
 Low Limit

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-0.0000</b>	<b>.0002</b>	<b>-0.0005</b>	<b>.0007</b>	<b>-0.0000</b>	<b>-0.0007</b>	<b>.0006</b>	<b>-0.0053</b>	<b>.0023</b>
Stddev	.0003	.0001	.0008	.0004	.0001	.0010	.0016	.0056	.0018
%RSD	4251.	56.34	169.2	58.45	1080.	157.6	286.6	105.8	77.79
#1	.0002	.0001	.0000	.0004	.0001	.0002	-0.001	-0.010	.0043
#2	.0002	.0002	-0.0001	.0005	-0.001	-0.003	.0024	-0.032	.0009
#3	-0.0004	.0002	-0.0015	.0012	-0.0000	-0.0018	-0.0006	-0.0116	.0017

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
 High Limit  
 Low Limit

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.0008</b>	<b>.0209</b>	<b>-0.0237</b>	<b>-0.0525</b>	<b>.0014</b>	<b>.0001</b>	<b>.0010</b>	<b>-0.0000</b>	<b>.0001</b>
Stddev	.0014	.0039	.0109	.0079	.0001	.0001	.0007	.0003	.0000
%RSD	183.7	18.90	46.07	15.05	8.904	204.5	64.16	1005.	59.68
#1	.0021	.0247	-0.0154	-0.0475	.0014	.0002	.0010	.0002	.0000
#2	.0009	.0212	-0.0197	-0.0616	.0013	-0.0001	.0004	.0001	.0001
#3	-0.0007	.0168	-0.0361	-0.0484	.0016	.0001	.0017	-0.0004	.0001

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: CCB 7 Acquired: 4/2/2019 19:36:50 Type: QC  
 Method: SGS No Vlave3(v343) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: : :  
 Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002	-0.0003	.0002	-0.0031	.0003	.0001	.0005
Stddev	.0001	.0009	.0001	.0018	.0006	.0005	.0012
%RSD	46.87	290.9	83.21	59.06	229.5	394.7	225.0

#1	.0002	-0.0000	.0001	-0.0037	-0.0004	.0007	-0.0002
#2	.0002	-0.0014	.0000	-0.0010	.0008	-0.0001	.0019
#3	.0001	.0004	.0003	-0.0045	.0004	-0.0002	-0.0001

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
 High Limit  
 Low Limit

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	154170.	28124.	4075.5	7506.2
Stddev	1118.	202.	12.0	15.6
%RSD	.72543	.71856	.29566	.20818

#1	153050.	28218.	4063.1	7493.0
#2	155280.	27892.	4076.1	7502.2
#3	154170.	28262.	4087.2	7523.4

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Sample Name: CRI Acquired: 4/2/2019 19:41:47 Type: QC  
 Method: SGS No Vlave3(v343) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: : :  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2005	.0020	.0030	.0488	.0098	.0091	.0156	.0100	.0041
Stddev	.0009	.0000	.0001	.0006	.0001	.0003	.0001	.0002	.0000
%RSD	.4572	2.163	3.217	1.132	1.346	2.976	.4458	2.103	1.176

#1	.2005	.0020	.0031	.0493	.0099	.0094	.0156	.0102	.0041
#2	.2014	.0020	.0029	.0488	.0098	.0089	.0156	.0100	.0042
#3	.1996	.0020	.0029	.0482	.0097	.0090	.0157	.0098	.0041

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
 Value  
 Range

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0501	.0207	.0077	.0109	.0035	.0084	.0071	.1963	5.006
Stddev	.0004	.0003	.0005	.0013	.0013	.0022	.0003	.0042	.022
%RSD	.7300	1.272	5.932	11.77	36.42	26.76	3.630	2.120	4.305

#1	.0498	.0210	.0078	.0096	.0023	.0101	.0074	.2010	5.000
#2	.0499	.0206	.0072	.0108	.0034	.0058	.0069	.1931	5.029
#3	.0505	.0206	.0081	.0122	.0048	.0092	.0071	.1947	4.987

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
 Value  
 Range

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1002	5.109	4.809	4.873	.1016	.0205	.2033	.0105	.0098
Stddev	.0026	.022	.007	.011	.0008	.0004	.0025	.0003	.0000
%RSD	2.615	.4315	.1537	2.239	.7821	1.999	1.211	2.408	2.695

#1	.0996	5.113	4.802	4.875	.1025	.0209	.2057	.0103	.0098
#2	.1031	5.128	4.817	4.883	.1015	.0204	.2032	.0108	.0098
#3	.0979	5.085	4.807	4.861	.1009	.0201	.2008	.0105	.0098

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
 Value  
 Range

7.2  
7

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Sample Name: CRI Acquired: 4/2/2019 19:41:47 Type: QC  
 Method: SGS No Vlave3(v343) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: : :  
 Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0101	.0500	.0086	.0490	.0233	.0525	.0485
Stddev	.0003	.0011	.0001	.0016	.0004	.0012	.0012
%RSD	2.565	2.256	1.508	3.249	1.791	2.249	2.541

#1	.0100	.0503	.0087	.0477	.0235	.0530	.0497
#2	.0098	.0509	.0085	.0508	.0236	.0511	.0486
#3	.0103	.0487	.0087	.0485	.0229	.0532	.0472

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
 Value  
 Range

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	153730.	28380.	4064.7	7387.0
Stddev	775.	95.	38.1	67.8
%RSD	.50438	.33609	.93633	.91745

#1	154160.	28442.	4023.9	7313.0
#2	154200.	28270.	4071.0	7401.8
#3	152840.	28429.	4099.2	7446.1

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Sample Name: CRID Acquired: 4/2/2019 19:46:59 Type: QC  
 Method: SGS No Vlave3(v343) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: : :  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0041	.0010	.0010	.0031	.0016	-0.0001	.0031	.0041	-0.0001
Stddev	.0001	.0000	.0001	.0002	.0002	.0001	.0000	.0002	.0001
%RSD	2.566	4.606	8.019	5.133	15.11	93.82	1.217	4.966	65.90

#1	.0040	.0010	.0010	.0031	.0018	-0.0001	.0031	.0043	-0.0002
#2	.0042	.0010	.0010	.0030	.0014	-0.0001	.0031	.0039	-0.0001
#3	.0040	.0010	.0011	.0033	.0016	-0.0003	.0031	.0041	-0.0001

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass None Chk Pass Chk Pass None  
 Value  
 Range

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0019	.0103	.0025	.0025	.0001	.0045	.0011	.0887	1.012
Stddev	.0002	.0001	.0003	.0001	.0010	.0015	.0004	.0039	.004
%RSD	11.16	.7241	13.41	3.683	125.3	32.43	38.69	4.000	.3675

#1	.0018	.0102	.0021	.0024	.0010	.0031	.0013	.1026	1.014
#2	.0018	.0104	.0026	.0026	.0004	.0043	.0006	.0988	1.008
#3	.0022	.0103	.0028	.0025	-0.0011	.0060	.0013	.0947	1.014

Check ? Chk Pass Chk Pass Chk Pass Chk Fail Chk Pass None Chk Pass None Chk Pass Chk Pass  
 Value  
 Range

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0010	.1195	1.914	.9349	.0010	.0001	-0.0002	-0.0003	-0.0000
Stddev	.0009	.0094	.027	.0046	.0006	.0001	.0006	.0004	.0001
%RSD	95.92	7.834	1.405	4.876	60.80	287.0	294.0	106.1	629.0

#1	-0.0001	.1241	1.919	.9379	.0015	-0.0001	.0004	-0.0004	.0000
#2	-0.0009	.1088	1.937	.9371	.0003	-0.0000	-0.0008	-0.0006	.0000
#3	-0.0019	.1258	1.884	.9296	.0011	.0002	-0.0002	.0001	-0.0001

Check ? None Chk Pass Chk Pass Chk Pass None None None None None  
 Value  
 Range

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Zoom In  
Zoom Out

Sample Name: CRID Acquired: 4/2/2019 19:46:59 Type: QC  
 Method: SGS No Vlave3(v343) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: : :  
 Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.0000</b>	<b>.0008</b>	<b>.0001</b>	<b>-0.0001</b>	<b>.0012</b>	<b>.0000</b>	<b>-0.0004</b>
Stddev	.0002	.0006	.0001	.0007	.0005	.0007	.0006
%RSD	440.7	83.57	105.9	979.3	39.88	12630.	165.0
#1	-0.0002	.0010	-0.0000	-0.0007	.0009	.0005	-0.0009
#2	.0002	.0000	.0002	.0006	.0017	-0.0008	.0003
#3	.0002	.0013	.0001	-0.0001	.0009	.0003	-0.0006
Check ?	None	None	None	None	None	None	None
Value Range							
Int. Std.	Y_3600	Y_3710	Y_2243	In2306			
Units	Cts/S	Cts/S	Cts/S	Cts/S			
Avg	<b>153860.</b>	<b>28128.</b>	<b>4059.1</b>	<b>7453.6</b>			
Stddev	181.	174.	8.9	16.7			
%RSD	.11755	.61841	.21829	.22460			
#1	153890.	27942.	4049.8	7435.3			
#2	153670.	28286.	4067.5	7468.1			
#3	154020.	28156.	4059.9	7457.4			

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Zoom In  
Zoom Out

Sample Name: ICSA Acquired: 4/2/2019 19:52:14 Type: QC  
 Method: SGS No Vlave3(v343) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: : :  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.0010</b>	<b>.0000</b>	<b>.0001</b>	<b>.0006</b>	<b>.0015</b>	<b>-0.0008</b>	<b>-0.0023</b>	<b>-0.0003</b>	<b>.0026</b>
Stddev	.0001	.0000	.0001	.0003	.0002	.0002	.0004	.0002	.0011
%RSD	10.94	85.23	234.4	60.63	12.56	20.22	15.51	66.31	42.89
#1	.0009	.0000	-0.0000	.0007	.0013	-0.0010	-0.0027	-0.0001	.0013
#2	.0011	.0001	.0002	.0008	.0016	-0.0007	-0.0020	-0.0004	.0033
#3	.0009	.0000	-0.0000	.0002	.0016	-0.0007	-0.0022	-0.0004	.0031
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.0011</b>	<b>-0.0004</b>	<b>.0011</b>	<b>.0025</b>	<b>.0025</b>	<b>.0016</b>	<b>-0.0007</b>	<b>.496.1</b>	<b>381.1</b>
Stddev	.0001	.0001	.0022	.0010	.0012	.0055	.0034	1.3	.9
%RSD	11.66	15.39	196.2	41.33	46.81	332.8	526.0	.2610	.2331
#1	.0011	-0.0004	.0001	.0033	.0037	.0027	-0.0044	496.3	381.9
#2	.0013	-0.0003	-0.0004	.0013	.0026	-0.0043	.0002	494.7	380.1
#3	.0010	-0.0005	.0037	.0029	.0013	.0065	.0023	497.2	381.3
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>192.2</b>	<b>512.7</b>	<b>.0151</b>	<b>-0.0234</b>	<b>.0012</b>	<b>-0.0024</b>	<b>-0.0021</b>	<b>-0.0021</b>	<b>-0.0070</b>
Stddev	3.8	1.8	.0408	.0080	.0012	.0001	.0005	.0006	.0001
%RSD	1.965	.3590	271.0	34.17	104.5	2.318	23.94	27.89	8.002
#1	188.0	510.8	.0443	-0.0187	.0011	-0.0024	-0.0016	-0.0028	-0.0071
#2	195.2	512.9	-0.0316	-0.0326	.0024	-0.0024	-0.0022	-0.0018	-0.0069
#3	193.5	514.5	.0325	-0.0188	.0000	-0.0023	-0.0026	-0.0017	-0.0070
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

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Zoom In  
Zoom Out

Sample Name: ICSA Acquired: 4/2/2019 19:52:14 Type: QC  
 Method: SGS No Vlave3(v343) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: : :  
 Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-0.0005</b>	<b>.0020</b>	<b>-0.0010</b>	<b>-0.0268</b>	<b>-0.0055</b>	<b>-0.0001</b>	<b>.0150</b>
Stddev	.0001	.0005	.0004	.0035	.0014	.0005	.0010
%RSD	16.42	24.47	39.87	12.95	25.24	322.5	6.463
#1	-0.0005	.0016	-0.0015	-0.0307	-0.0041	-0.0006	.0151
#2	-0.0006	.0018	-0.0007	-0.0240	-0.0069	.0004	.0159
#3	-0.0005	.0025	-0.0009	-0.0257	-0.0056	-0.0002	.0140
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							
Int. Std.	Y_3600	Y_3710	Y_2243	In2306			
Units	Cts/S	Cts/S	Cts/S	Cts/S			
Avg	<b>136470.</b>	<b>27134.</b>	<b>3695.0</b>	<b>6154.0</b>			
Stddev	179.	102.	6.3	7.8			
%RSD	.13136	.37774	.17091	.12713			
#1	136390.	27225.	3692.3	6145.1			
#2	136680.	27153.	3690.4	6157.0			
#3	136350.	27023.	3702.2	6159.8			

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Zoom In  
Zoom Out

Sample Name: ICSAB Acquired: 4/2/2019 19:57:44 Type: QC  
 Method: SGS No Vlave3(v343) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: : :  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.5132</b>	<b>.4987</b>	<b>1.020</b>	<b>.4752</b>	<b>.4755</b>	<b>.5120</b>	<b>.4975</b>	<b>.9652</b>	<b>1.084</b>
Stddev	.0052	.0045	.006	.0037	.0041	.0032	.0024	.0045	.009
%RSD	1.021	.9093	.6050	.7773	.8582	.6256	.4839	.4632	.8520
#1	.5150	.5012	1.020	.4747	.4800	.5144	.4999	.9646	1.094
#2	.5073	.4935	1.027	.4791	.4745	.5132	.4975	.9699	1.081
#3	.5173	.5015	1.014	.4718	.4720	.5083	.4951	.9610	1.076
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value Range									
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.4919</b>	<b>.9350</b>	<b>1.061</b>	<b>.9811</b>	<b>.9612</b>	<b>1.053</b>	<b>1.070</b>	<b>506.9</b>	<b>380.3</b>
Stddev	.0029	.0067	.007	.0109	.0032	.004	.005	5.3	3.4
%RSD	.5954	.7130	.6391	1.107	.3335	.4161	.4943	1.036	.8905
#1	.4948	.9360	1.061	.9799	.9575	1.052	1.070	508.6	384.1
#2	.4918	.9411	1.067	.9924	.9631	1.058	1.074	501.0	379.4
#3	.4890	.9279	1.054	.9708	.9630	1.050	1.064	511.1	377.5
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value Range									
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>186.4</b>	<b>517.6</b>	<b>.0222</b>	<b>-0.0174</b>	<b>.4867</b>	<b>.4834</b>	<b>.5176</b>	<b>.4590</b>	<b>.5643</b>
Stddev	.8	4.3	.0168	.0075	.0025	.0035	.0029	.0042	.0051
%RSD	.4485	.8403	75.46	43.22	.5223	.7215	.5604	.9230	.8989
#1	185.5	520.3	.0318	-0.0192	.4858	.4838	.5196	.4610	.5667
#2	186.4	512.6	.0320	-0.0238	.4896	.4867	.5188	.4619	.5585
#3	187.2	520.0	.0029	-0.0091	.4847	.4798	.5142	.4541	.5677
Check ?	Chk Pass	Chk Pass	None	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value Range									

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Sample Name: ICSAB Acquired: 4/2/2019 19:57:44 Type: QC
Method: SGS No Vlave3(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: :
Comment:

Table with 8 columns (Elem, Units, W\_2079, Zr3391, S\_1820, Bi2230, Li6707, P\_1774) and 4 rows (Avg, Stddev, %RSD, #1-3).

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value Range

Table with 4 columns (Int. Std. Units, Y\_3600, Y\_3710, Y\_2243, In2306) and 4 rows (Avg, Stddev, %RSD, #1-3).

Table with 4 columns (Units, #1, #2, #3) and 4 rows (135850, 26702, 3695.0, 6170.7).

Sample Name: HSTD Acquired: 4/2/2019 20:03:02 Type: QC
Method: SGS No Vlave3(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: :
Comment:

Table with 11 columns (Elem, Units, Ba4554, Be3130, Cd2288, Co2286, Cr2677, Cu3247, Mn2576, Ni2316, Ag3280) and 4 rows (Avg, Stddev, %RSD, #1-3).

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value Range

Table with 11 columns (Elem, Units, V\_2924, Zn2062, As1890, Ti1908, Pb2203, Se1960, Sb2068, Al3961, Ca3179) and 4 rows (Avg, Stddev, %RSD, #1-3).

Table with 11 columns (Units, #1, #2, #3) and 4 rows (8.250, 8.529, 8.150, 8.348).

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass None None
Value Range

Table with 11 columns (Elem, Units, Fe2599, Mg2790, K\_7664, Na5895, B\_2089, Mo2020, Si2124, Sn1899, Sr4077) and 4 rows (Avg, Stddev, %RSD, #1-3).

Table with 11 columns (Units, #1, #2, #3) and 4 rows (0.738, 0.091, 0.196, 0.086).

Check ? None None None None Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value Range

Sample Name: HSTD Acquired: 4/2/2019 20:03:02 Type: QC
Method: SGS No Vlave3(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: :
Comment:

Table with 8 columns (Elem, Units, W\_2079, Zr3391, S\_1820, Bi2230, Li6707, P\_1774) and 4 rows (Avg, Stddev, %RSD, #1-3).

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass
Value Range

Table with 4 columns (Int. Std. Units, Y\_3600, Y\_3710, Y\_2243, In2306) and 4 rows (Avg, Stddev, %RSD, #1-3).

Table with 4 columns (Units, #1, #2, #3) and 4 rows (149590, 27938, 3921.8, 7303.6).

Sample Name: HSTD Acquired: 4/2/2019 20:08:54 Type: QC
Method: SGS No Vlave3(v343) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: :
Comment:

Table with 11 columns (Elem, Units, Ba4554, Be3130, Cd2288, Co2286, Cr2677, Cu3247, Mn2576, Ni2316, Ag3280) and 4 rows (Avg, Stddev, %RSD, #1-3).

Check ? None None None None None None None None None None
Value Range

Table with 11 columns (Elem, Units, V\_2924, Zn2062, As1890, Ti1908, Pb2203, Se1960, Sb2068, Al3961, Ca3179) and 4 rows (Avg, Stddev, %RSD, #1-3).

Table with 11 columns (Units, #1, #2, #3) and 4 rows (0.014, 0.002, 0.000, 0.005).

Check ? None None None None None None None Chk Pass Chk Pass
Value Range

Table with 11 columns (Elem, Units, Fe2599, Mg2790, K\_7664, Na5895, B\_2089, Mo2020, Si2124, Sn1899, Sr4077) and 4 rows (Avg, Stddev, %RSD, #1-3).

Table with 11 columns (Units, #1, #2, #3) and 4 rows (195.4, 309.2, 201.0, 204.1).

Check ? Chk Pass Chk Pass Chk Pass Chk Pass None None None None None
Value Range

Sample Name: HSTD Acquired: 4/2/2019 20:08:54 Type: QC  
 Method: SGS No Vlave3(v343) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: :  
 Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000	.0009	-0.005	-0.245	-0.055	.0035	.0093
Stddev	.0001	.0007	.0002	.0031	.0006	.0004	.0008
%RSD	289.2	73.24	40.20	12.63	10.94	12.67	8.303
#1	.0000	.0010	-0.007	-0.210	-0.059	.0032	.0089
#2	.0001	.0002	-0.005	-0.257	-0.059	.0040	.0102
#3	-0.0000	.0016	-0.003	-0.268	-0.048	.0032	.0088
Check ?	None	None	None	None	None	None	None
Value							
Range							
Int. Std.	Y_3600	Y_3710	Y_2243	In2306			
Units	Cts/S	Cts/S	Cts/S	Cts/S			
Avg	139110.	27143.	3745.6	6217.9			
Stddev	603.	95.	3.6	5.0			
%RSD	.43370	.34854	.09713	.08038			
#1	138650.	27148.	3745.3	6221.5			
#2	138890.	27234.	3749.4	6220.1			
#3	139790.	27045.	3742.1	6212.2			

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Sample Name: feconf Acquired: 4/2/2019 20:14:35 Type: Unk  
 Method: SGS No Vlave3(v343) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: :  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0006	.0000	.0001	.0002	.0015	.0003	-0.018	-0.008	.0033
Stddev	.0001	.0000	.0001	.0001	.0002	.0002	.0001	.0004	.0003
%RSD	9.661	16.26	103.5	28.67	15.51	58.99	5.844	48.20	8.557
#1	.0005	.0000	-0.000	.0002	.0018	.0002	-0.019	-0.008	.0031
#2	.0006	.0000	.0002	.0001	.0015	.0005	-0.018	-0.004	.0032
#3	.0005	.0000	.0001	.0002	.0014	.0002	-0.017	-0.011	.0036
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0001	.0043	.0001	.0012	.0060	.0054	-0.036	-0.049	-0.240
Stddev	.0002	.0001	.0016	.0006	.0003	.0027	.0013	.0015	.0008
%RSD	241.1	2.197	2937.	47.14	5.718	49.77	35.89	29.89	3.450
#1	.0001	.0042	-0.015	.0013	.0056	.0024	-0.035	-0.060	-0.231
#2	-0.0002	.0044	.0001	.0017	.0060	.0063	-0.049	-0.032	-0.246
#3	-0.0000	.0043	.0016	.0006	.0063	.0075	-0.023	-0.054	-0.244
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 202.6	-0.213	-0.410	-0.498	-0.007	.0007	.0008	.0005	-0.000
Stddev	1.5	.0069	.0247	.0120	.0004	.0001	.0013	.0004	.0001
%RSD	.7474	32.35	60.37	24.15	49.78	16.23	159.3	92.19	715.7
#1	200.9	-0.153	-0.357	-0.412	-0.006	.0008	.0020	-0.000	-0.000
#2	203.1	-0.288	-0.193	-0.446	-0.012	.0006	.0009	.0008	-0.001
#3	203.9	-0.197	-0.079	-0.635	-0.005	.0007	-0.005	.0007	.0001
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	.0001	.0006	.0003	-0.062	-0.063	.0001	.0025		
Stddev	.0001	.0006	.0001	.0009	.0006	.0004	.0017		
%RSD	94.27	101.1	28.67	13.99	9.812	687.0	65.98		
#1	.0002	.0005	.0002	-0.065	-0.057	-0.003	.0020		
#2	.0000	.0013	.0004	-0.052	-0.070	-0.001	.0011		
#3	.0001	.0001	.0004	-0.069	-0.063	.0005	.0044		

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7.2  
7

Sample Name: feconf Acquired: 4/2/2019 20:14:35 Type: Unk  
 Method: SGS No Vlave3(v343) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: :  
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	152030.	27989.	4038.6	7573.1
Stddev	658.	32.	21.0	37.0
%RSD	.43268	.11374	.52070	.48839
#1	152780.	27953.	4022.5	7545.2
#2	151760.	28001.	4030.8	7559.0
#3	151550.	28012.	4062.3	7615.0

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Sample Name: crconf Acquired: 4/2/2019 20:19:58 Type: Unk  
 Method: SGS No Vlave3(v343) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: :  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001	.0000	-0.010	-0.012	F 10.02	-0.006	.0001	-0.005	-0.002
Stddev	.0000	.0000	.0002	.0001	.03	.0002	.0000	.0001	.0002
%RSD	40.27	47.32	16.55	10.99	.2506	31.05	18.77	20.95	82.34
#1	.0001	.0000	-0.009	-0.012	10.03	-0.004	.0002	-0.004	-0.003
#2	.0001	.0000	-0.008	-0.011	9.987	-0.008	.0001	-0.005	-0.004
#3	.0001	.0000	-0.011	-0.013	10.03	-0.007	.0001	-0.007	-0.000
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0037	.0045	.0001	.0021	.0014	.0016	-0.002	-0.003	.0052
Stddev	.0001	.0000	.0020	.0010	.0003	.0030	.0006	.0047	.0014
%RSD	2.595	.7889	1432.	47.28	18.99	181.1	376.4	1615.	26.63
#1	-0.0036	.0045	.0004	.0025	.0012	-0.009	.0005	-0.056	.0044
#2	-0.0038	.0045	-0.019	.0029	.0014	.0050	-0.007	.0033	.0068
#3	-0.0036	.0045	.0020	.0010	.0017	.0008	-0.003	.0014	.0045
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0168	.0228	-0.381	-0.633	.0009	.0005	.0016	-0.015	.0001
Stddev	.0007	.0068	.0188	.0045	.0003	.0002	.0011	.0001	.0001
%RSD	4.283	29.70	49.39	7.070	37.41	41.40	66.69	7.579	95.52
#1	.0168	.0150	-0.168	-0.622	.0013	.0006	.0020	-0.015	.0001
#2	.0175	.0259	-0.449	-0.596	.0008	.0006	.0004	-0.013	.0000
#3	.0161	.0274	-0.525	-0.683	.0006	.0003	.0024	-0.016	.0000
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	-0.0001	.0031	-0.079	.0012	-0.000	-0.000	-0.005		
Stddev	.0001	.0003	.0002	.0013	.0005	.0005	.0002		
%RSD	90.32	8.526	2.583	111.2	1084.	2939.	51.07		
#1	-0.0000	.0028	-0.081	.0027	.0004	.0006	-0.005		
#2	-0.0002	.0031	-0.077	.0005	-0.005	-0.002	-0.002		
#3	-0.0001	.0033	-0.079	.0003	-0.000	-0.004	-0.007		

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Sample Name: crconf Acquired: 4/2/2019 20:19:58 Type: Unk  
 Method: SGS No Vlave3(v343) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: :  
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	156650.	28568.	4048.9	7563.3
Stddev	675.	129.	4.7	9.5
%RSD	.43118	.45101	.11633	.12565
#1	156300.	28455.	4046.7	7554.0
#2	157430.	28541.	4054.3	7573.0
#3	156230.	28708.	4045.6	7562.8

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Sample Name: asconf Acquired: 4/2/2019 20:25:15 Type: Unk  
 Method: SGS No Vlave3(v343) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: :  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001	-0.0000	-0.0003	.0000	-0.0001	-0.0001	.0000	-0.0000	-0.0002
Stddev	.0001	.0000	.0002	.0001	.0001	.0004	.0000	.0002	.0002
%RSD	113.0	71.35	51.99	220.1	48.40	319.1	229.4	1329.	92.61
#1	.0002	-0.0000	-0.0002	-0.0000	-0.0002	.0000	-0.0000	-0.0002	-0.0001
#2	.0001	-0.0000	-0.0005	.0001	-0.0001	.0002	.0000	-0.0000	-0.0001
#3	-0.0000	-0.0000	-0.0003	.0000	-0.0001	-0.0005	.0000	.0002	-0.0005

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0002	-0.0024	5.321	-0.0005	-0.0002	-0.0003	.0007	-0.0052	-0.0085
Stddev	.0002	.0001	.025	.0013	.0006	.0007	.0008	.0070	.0022
%RSD	66.08	3.968	4.766	284.0	321.6	280.2	108.6	134.9	25.80
#1	-0.0004	-0.0024	5.317	-0.0010	-0.0009	.0006	.0016	-0.0085	-0.0063
#2	-0.0002	-0.0024	5.347	.0012	.0003	-0.0008	.0002	-0.0100	-0.0106
#3	-0.0001	-0.0023	5.297	.0012	.0000	-0.0005	.0003	.00029	-0.0087

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0012	.0126	-0.0041	-0.0766	.0004	.0001	.0020	-0.0011	-0.0000
Stddev	.0007	.0027	.0194	.0078	.0004	.0001	.0006	.0007	.0000
%RSD	59.74	21.51	476.7	10.16	94.34	154.8	29.20	60.84	1196.
#1	-0.0009	.0130	-0.0160	-0.0757	.0005	-0.0000	.0026	-0.0015	-0.0000
#2	-0.0019	.0151	-0.0145	-0.0847	-0.0000	.0001	.0017	-0.0014	.0000
#3	-0.0006	.0097	.0183	-0.0693	.0007	.0001	.0016	-0.0003	.0000

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001	.0019	-0.0000	-0.0017	.0001	.0004	.0001
Stddev	.0001	.0007	.0001	.0014	.0009	.0003	.0004
%RSD	177.9	35.58	2454.	79.13	774.5	75.94	381.3
#1	.0000	.0015	.0000	-0.0029	-0.0005	.0004	.0004
#2	-0.0000	.0015	.0000	-0.0002	.0012	.0001	-0.0003
#3	.0002	.0027	-0.0001	-0.0020	-0.0004	.0007	.0002

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7.2  
7

Sample Name: asconf Acquired: 4/2/2019 20:25:15 Type: Unk  
 Method: SGS No Vlave3(v343) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: :  
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	154240.	27919.	4079.7	7510.2
Stddev	753.	149.	18.3	38.6
%RSD	.48846	.53432	.44895	.51423
#1	154470.	27869.	4079.1	7503.9
#2	153400.	27801.	4061.7	7475.1
#3	154850.	28087.	4098.4	7551.5

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Sample Name: CCV Acquired: 4/2/2019 20:30:29 Type: QC  
 Method: SGS No Vlave3(v343) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: :  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.043	2.059	2.023	2.016	2.041	1.993	2.085	2.051	2.488
Stddev	.002	.001	.012	.007	.005	.009	.006	.008	.0004
%RSD	.1132	.0306	.6092	.3633	.2438	.4648	.2862	.3915	.1595
#1	2.045	2.060	2.034	2.022	2.042	2.000	2.088	2.057	2.486
#2	2.040	2.059	2.026	2.018	2.045	1.996	2.089	2.054	2.492
#3	2.043	2.059	2.010	2.008	2.035	1.983	2.078	2.042	2.485

Check ?	Value	Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	2.030	2.048	1.999	2.083	2.047	1.998	2.029	39.80	40.39	
Stddev	.009	.014	.009	.013	.008	.013	.010	.10	.12	
%RSD	.4307	.6650	.4376	.6163	.4065	.6715	.4823	.2421	.2967	
#1	2.034	2.059	2.004	2.094	2.054	2.010	2.038	39.91	40.52	
#2	2.036	2.052	2.003	2.084	2.050	2.000	2.031	39.76	40.35	
#3	2.020	2.033	1.989	2.069	2.038	1.983	2.018	39.73	40.29	

Check ?	Value	Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	40.62	40.22	39.59	40.15	2.045	2.045	5.181	2.057	2.053	
Stddev	.13	.06	.02	.06	.013	.012	.026	.018	.003	
%RSD	.3090	.1456	.0473	.1497	.6324	.5747	.4990	.8809	.1585	
#1	40.49	40.28	39.59	40.08	2.057	2.055	5.202	2.071	2.051	
#2	40.61	40.16	39.61	40.17	2.047	2.048	5.190	2.063	2.051	
#3	40.74	40.22	39.57	40.19	2.031	2.032	5.152	2.037	2.057	

Check ?	Value	Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	40.62	40.22	39.59	40.15	2.045	2.045	5.181	2.057	2.053	
Stddev	.13	.06	.02	.06	.013	.012	.026	.018	.003	
%RSD	.3090	.1456	.0473	.1497	.6324	.5747	.4990	.8809	.1585	
#1	40.49	40.28	39.59	40.08	2.057	2.055	5.202	2.071	2.051	
#2	40.61	40.16	39.61	40.17	2.047	2.048	5.190	2.063	2.051	
#3	40.74	40.22	39.57	40.19	2.031	2.032	5.152	2.037	2.057	

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Sample Name: CCV Acquired: 4/2/2019 20:30:29 Type: QC  
Method: SGS No Valve3(v343) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: : :  
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.050	2.027	2.034	1.977	2.022	2.055	1.994
Stddev	.004	.013	.008	.013	.011	.002	.015
%RSD	.1900	.6277	.3741	.6409	.5388	.1096	.7250

#1	2.052	2.039	2.040	1.991	2.030	2.057	2.009
#2	2.052	2.028	2.037	1.973	2.026	2.056	1.992
#3	2.045	2.014	2.025	1.966	2.009	2.053	1.980

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
Value High Limit Low Limit

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	147170.	27674.	3966.9	6853.5
Stddev	414.	63.	23.2	30.0
%RSD	.28134	.22848	.58587	.43820

#1	147050.	27687.	3948.8	6830.1
#2	146840.	27729.	3958.9	6843.0
#3	147640.	27605.	3993.1	6887.3

Sample Name: CCB Acquired: 4/2/2019 20:35:20 Type: QC  
Method: SGS No Valve3(v343) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: : :  
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000	.0000	.0000	.0001	.0000	.0001	.0001	.0001	.0002
Stddev	.0001	.0000	.0003	.0001	.0001	.0003	.0000	.0003	.0002
%RSD	243.5	14.11	2993.	81.08	278.0	206.4	45.49	369.3	117.9

#1	.0001	.0000	-.0002	.0001	.0001	.0002	.0001	.0001	-.0002
#2	.0001	.0000	-.0001	.0002	.0000	.0003	.0000	-.0005	.0000
#3	-.0001	.0000	.0003	.0001	-.0001	-.0002	.0000	.0001	-.0004

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
Value High Limit Low Limit

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001	.0002	-.0001	-.0001	-.0002	-.0002	.0014	-.0019	.0001
Stddev	.0003	.0001	.0012	.0013	.0003	.0013	.0013	.0041	.0007
%RSD	548.2	27.63	899.9	936.6	161.1	678.0	91.11	217.5	145.7

#1	.0003	.0002	.0007	.0013	-.0004	.0004	.0017	-.0060	.0009
#2	.0001	.0002	.0004	-.0010	-.0004	.0007	.0025	-.0019	-.0003
#3	-.0003	.0001	-.0015	-.0007	.0002	-.0017	.0000	.0002	-.0004

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
Value High Limit Low Limit

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0010	.0167	-.0220	-.0781	.0012	-.0000	.0013	-.0000	.0000
Stddev	.0009	.0065	.0348	.0042	.0005	.0001	.0002	.0007	.0000
%RSD	89.74	39.03	158.0	5.316	41.97	55.76.	17.69	36060.	326.6

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
Value High Limit Low Limit

Sample Name: MP13762-MB1 Acquired: 4/2/2019 20:40:35 Type: Unk  
Method: SGS No Valve3(v343) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: : :  
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0000	-.0000	-.0001	-.0000	.0002	.0000	.0000	-.0003	-.0004
Stddev	.0001	.0000	.0002	.0000	.0002	.0003	.0000	.0001	.0005
%RSD	451.7	294.0	248.0	1229.	64.68	541.0	29.58	23.58	111.4

#1	.0001	-.0001	-.0002	-.0000	.0004	.0004	.0001	-.0002	-.0002
#2	-.0001	-.0000	.0001	-.0000	.0001	-.0001	.0000	-.0003	-.0010
#3	-.0001	.0000	-.0001	-.0000	.0001	-.0001	.0000	-.0002	-.0001

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0001	.0005	-.0005	-.0004	.0006	-.0010	.0022	-.0029	.0005
Stddev	.0002	.0000	.0004	.0003	.0008	.0001	.0003	.0047	.0005
%RSD	131.6	7.318	70.89	77.88	147.4	13.59	14.52	161.5	92.19

#1	.0001	.0005	-.0002	-.0008	.0013	-.0009	.0019	.0001	.0001
#2	-.0002	.0006	-.0004	-.0001	.0008	-.0009	.0025	-.0084	.0010
#3	-.0002	.0005	-.0009	-.0004	-.0004	-.0011	.0022	-.0005	.0004

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0024	.0099	-.0077	-.0789	.0005	.0001	.0002	.0103	-.0000
Stddev	.0004	.0131	.0210	.0038	.0003	.0002	.0004	.0003	.0000
%RSD	16.29	132.8	273.4	4.764	61.47	174.5	4.531	2.787	249.4

#1	.0020	.0080	.0070	-.0801	.0003	-.0001	.0083	.0100	-.0000
#2	.0028	.0238	.0017	-.0820	.0009	.0003	.0085	.0103	-.0000
#3	.0025	-.0022	-.0317	-.0747	.0004	.0001	.0078	.0106	.0000

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001	.0005	.0001	.0020	.0002	.0002	.0030
Stddev	.0001	.0009	.0001	.0022	.0011	.0002	.0010
%RSD	176.3	159.4	114.5	111.9	617.7	93.36	35.06

#1	.0001	.0005	.0001	.0018	-.0008	.0000	.0042
#2	-.0001	-.0003	.0003	.0042	.0013	.0002	.0023
#3	.0001	.0014	-.0000	-.0001	.0001	.0005	.0025

Sample Name: MP13762-MB1 Acquired: 4/2/2019 20:40:35 Type: Unk  
 Method: SGS No Vlave3(v343) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: : :  
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	157070	28419	4089.8	7533.7
Stddev	738	469	30.1	45.6
%RSD	.46983	1.6509	.73552	.60554

#1	157770	28642	4055.6	7481.0
#2	156300	28736	4101.6	7559.1
#3	157130	27880	4112.2	7561.0

Sample Name: MP13762-B1 Acquired: 4/2/2019 20:45:50 Type: Unk  
 Method: SGS No Vlave3(v343) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: : :  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>1.930</b>	<b>1.949</b>	<b>1.925</b>	<b>1.912</b>	<b>1.919</b>	<b>1.872</b>	<b>1.962</b>	<b>1.945</b>
Stddev	.001	.002	.011	.010	.004	.006	.003	.012
%RSD	.0677	.0939	.5521	.5291	.2243	.3078	.1690	.6232

#1	1.930	1.948	1.917	1.906	1.918	1.867	1.960	1.939
#2	1.932	1.951	1.921	1.903	1.915	1.871	1.960	1.936
#3	1.929	1.948	1.937	1.926	1.923	1.878	1.966	1.959

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>2.405</b>	<b>1.907</b>	<b>1.946</b>	<b>1.908</b>	<b>2.001</b>	<b>1.943</b>	<b>1.892</b>	<b>1.957</b>
Stddev	.009	.005	.011	.010	.004	.010	.009	.011
%RSD	.3811	.2905	.5426	.5119	.1874	.4946	.4951	.5566

#1	2.415	1.903	1.938	1.900	1.998	1.936	1.884	1.950
#2	2.396	1.906	1.943	1.905	2.000	1.939	1.890	1.952
#3	2.405	1.913	1.958	1.919	2.005	1.954	1.902	1.970

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>24.06</b>	<b>24.46</b>	<b>24.81</b>	<b>24.30</b>	<b>23.82</b>	<b>24.30</b>	<b>1.920</b>	<b>1.984</b>
Stddev	.02	.03	.09	.07	.01	.03	.016	.012
%RSD	.0834	.1391	.3599	.2903	.0335	.1165	.8146	.6003

#1	24.03	24.43	24.72	24.23	23.83	24.28	1.914	1.973
#2	24.07	24.49	24.90	24.37	23.83	24.34	1.909	1.982
#3	24.06	24.47	24.81	24.29	23.82	24.29	1.938	1.997

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-0.0044</b>	<b>1.997</b>	<b>1.937</b>	<b>1.943</b>	<b>1.922</b>	<b>1.915</b>	<b>F -.0547</b>	<b>.0358</b>
Stddev	.0009	.008	.003	.005	.012	.003	.0039	.0007
%RSD	19.73	.4171	.1681	.2618	.6323	.1592	7.080	1.990

#1	-0.053	1.990	1.936	1.941	1.912	1.912	-0.0522	.0350
#2	-0.037	1.995	1.941	1.940	1.920	1.915	-0.0528	.0358
#3	-0.041	2.006	1.934	1.949	1.936	1.918	-0.0592	.0364

7.2  
7

Sample Name: MP13762-B1 Acquired: 4/2/2019 20:45:50 Type: Unk  
 Method: SGS No Vlave3(v343) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: : :  
 Comment:

Elem	Li6707	P_1774
Units	ppm	ppm
Avg	<b>-0.0002</b>	<b>1.888</b>
Stddev	.0003	.011
%RSD	115.9	.5619

#1	.0000	1.876
#2	-.0005	1.896
#3	-.0002	1.892

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	151670	28385	3997.5	7024.2
Stddev	433	111	26.1	39.6
%RSD	.28560	.39012	.65245	.56311

#1	151980	28508	4021.1	7053.7
#2	151850	28293	4001.8	7039.7
#3	151170	28354	3969.5	6979.2

Sample Name: MP13762-S1 Acquired: 4/2/2019 20:50:41 Type: Unk  
 Method: SGS No Vlave3(v343) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: : :  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>2.023</b>	<b>1.939</b>	<b>2.199</b>	<b>1.954</b>	<b>1.905</b>	<b>2.048</b>	<b>2.051</b>	<b>1.993</b>	<b>.3018</b>
Stddev	.003	.004	.004	.003	.006	.007	.008	.004	.0005
%RSD	.1598	.1873	.1759	.1536	.3034	.3579	.3758	.2264	.1645

#1	2.025	1.941	2.196	1.951	1.912	2.056	2.060	1.988	.3015
#2	2.025	1.942	2.204	1.955	1.902	2.045	2.046	1.994	.3024
#3	2.019	1.935	2.199	1.957	1.901	2.042	2.046	1.997	.3016

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>1.952</b>	<b>1.969</b>	<b>2.208</b>	<b>1.845</b>	<b>1.941</b>	<b>2.151</b>	<b>2.187</b>	<b>25.85</b>	<b>183.2</b>
Stddev	.007	.003	.005	.002	.002	.008	.002	.04	2.5
%RSD	.3755	.1442	.2212	.1168	.1179	.3524	.0877	.1385	1.383

#1	1.961	1.971	2.212	1.843	1.942	2.149	2.185	25.85	184.9
#2	1.949	1.965	2.208	1.847	1.939	2.160	2.189	25.89	184.5
#3	1.947	1.970	2.203	1.846	1.943	2.145	2.186	25.82	180.3

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>25.29</b>	<b>F 504.2</b>	<b>176.2</b>	<b>****</b>	<b>3.566</b>	<b>1.961</b>	<b>2.042</b>	<b>1.892</b>	<b>4.769</b>
Stddev	.09	1.1	.7	----	.008	.002	.007	.002	.019
%RSD	.3723	.2198	.4208	----	.2352	.1178	.3535	.0950	.3934

#1	25.39	505.2	176.2	----	3.561	1.960	2.043	1.891	4.788
#2	25.28	504.4	176.9	----	3.576	1.964	2.049	1.894	4.769
#3	25.20	503.0	175.4	----	3.562	1.960	2.035	1.890	4.750

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>2.004</b>	<b>1.921</b>	<b>2.010</b>	<b>F 335.0</b>	<b>.0362</b>	<b>.0977</b>	<b>2.263</b>
Stddev	.006	.001	.007	1.1	.0008	.0022	.009
%RSD	.3206	.0734	.3596	.3274	2.312	2.300	3858

#1	2.011	1.923	2.018	334.6	.0360	.0951	2.264
#2	2.000	1.921	2.009	336.2	.0355	.0992	2.271
#3	2.000	1.920	2.004	334.1	.0372	.0988	2.254



Zoom In  
Zoom Out

Sample Name: MP13762-S1 Acquired: 4/2/2019 20:50:41 Type: Unk  
Method: SGS No Vlave3(v343) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: :  
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	118700.	25556.	3217.0	5120.7
Stddev	568.	117.	2.8	3.1
%RSD	47829	45796	.08615	.05993
#1	118070.	25530.	3214.7	5123.3
#2	119150.	25453.	3216.1	5117.3
#3	118890.	25683.	3220.1	5121.4

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Zoom In  
Zoom Out

Sample Name: MP13762-S2 Acquired: 4/2/2019 20:55:50 Type: Unk  
Method: SGS No Vlave3(v343) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: :  
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.001	1.917	2.189	1.952	1.898	2.031	2.038	1.991	2.924
Stddev	.007	.009	.017	.012	.008	.006	.008	.011	.003
%RSD	.3536	.4940	.7791	.6158	.4317	.2871	.3907	.5405	.0920
#1	2.008	1.926	2.208	1.964	1.894	2.028	2.035	2.001	2.923
#2	2.000	1.918	2.186	1.953	1.892	2.026	2.032	1.991	2.922
#3	1.994	1.907	2.174	1.940	1.907	2.037	2.047	1.979	2.927
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.942	1.956	2.158	1.843	1.938	2.141	2.130	25.18	175.6
Stddev	.006	.016	.012	.004	.012	.018	.018	.09	.5
%RSD	.3321	.8193	.5718	.1933	.6261	.8390	.8480	.3465	.2765
#1	1.939	1.970	2.172	1.847	1.950	2.160	2.150	25.27	176.0
#2	1.938	1.961	2.154	1.842	1.939	2.136	2.125	25.18	175.6
#3	1.950	1.939	2.148	1.841	1.926	2.125	2.116	25.09	175.0
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.58	F 480.2	166.9	*****	3.500	1.916	1.973	1.843	4.603
Stddev	.14	2.0	.7	----	.027	.014	.014	.011	.026
%RSD	.5685	.4268	.4035	----	.7591	.7197	.7210	.5811	.5636
#1	24.73	481.8	167.6	----	3.529	1.929	1.988	1.853	4.628
#2	24.56	480.9	166.9	----	3.494	1.916	1.970	1.844	4.577
#3	24.45	477.9	166.3	----	3.476	1.902	1.960	1.832	4.605
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	1.950	1.894	1.950	F 321.1	.0372	.0852	2.251		
Stddev	.007	.017	.007	1.6	.0016	.0010	.011		
%RSD	.3496	.9116	.3619	4.871	4.363	1.218	4.973		
#1	1.947	1.912	1.947	322.8	.0362	.0855	2.263		
#2	1.945	1.893	1.944	320.5	.0391	.0860	2.245		
#3	1.958	1.878	1.958	319.9	.0363	.0840	2.243		

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Zoom In  
Zoom Out

Sample Name: MP13762-S2 Acquired: 4/2/2019 20:55:50 Type: Unk  
Method: SGS No Vlave3(v343) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: :  
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	119800.	25814.	3244.3	5160.7
Stddev	386.	91.	23.8	29.2
%RSD	.32229	.35154	.73305	.56666
#1	119760.	25734.	3220.0	5130.0
#2	120200.	25794.	3245.6	5163.7
#3	119430.	25913.	3267.5	5188.2

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Zoom In  
Zoom Out

Sample Name: JC85326-1 Acquired: 4/2/2019 21:01:00 Type: Unk  
Method: SGS No Vlave3(v343) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: :  
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	.0293	.0001	.0003	.0000	.0010	.0127	.0777	.0020		
Stddev	.0003	.0000	.0000	.0002	.0003	.0003	.0004	.0002		
%RSD	.9620	18.96	9.768	15470.	32.75	2.405	.5717	8.786		
#1	.0293	.0001	.0003	-.0002	.0013	.0126	.0777	.0020		
#2	.0290	.0001	.0003	.0001	.0010	.0131	.0781	.0019		
#3	.0296	.0002	.0004	.0001	.0007	.0125	.0773	.0022		
Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	-.0013	.0022	.0127	-.0011	.0092	F -.0073	.0030	.0016		
Stddev	.0003	.0003	.0004	.0011	.0021	.0010	.0016	.0012		
%RSD	21.69	13.28	3.427	97.79	22.70	13.30	52.86	76.75		
#1	-.0010	.0021	.0123	-.0004	.0116	-.0064	.0034	.0029		
#2	-.0013	.0025	.0126	-.0023	.0087	-.0071	.0012	.0015		
#3	-.0016	.0020	.0131	-.0006	.0075	-.0084	.0043	.0004		
Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	.1191	151.0	.2127	F 456.3	141.3	*****	1.584	.0039		
Stddev	.0055	1.3	.0006	3.7	1.0	----	.019	.0002		
%RSD	4.631	.8451	.2593	.8078	.6938	----	1.207	4.040		
#1	.1127	151.1	.2123	457.9	141.9	----	1.570	.0041		
#2	.1223	149.8	.2134	452.1	140.2	----	1.575	.0038		
#3	.1222	152.3	.2125	459.0	141.8	----	1.606	.0039		
Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	1.857	-.0010	2.661	.0039	.0034	-.0014	F 328.7	.0021		
Stddev	.026	.0008	.030	.0004	.0005	.0001	5.0	.0002		
%RSD	1.421	80.89	1.116	10.84	15.35	4.352	1.523	11.10		
#1	1.842	-.0002	2.657	.0034	.0039	-.0014	326.1	.0018		
#2	1.841	-.0010	2.633	.0041	.0034	-.0014	325.6	.0023		
#3	1.887	-.0019	2.692	.0043	.0028	-.0013	334.5	.0021		

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Zoom In  
Zoom Out

Sample Name: JC85326-1 Acquired: 4/2/2019 21:01:00 Type: Unk  
Method: SGS No Vlave3(v343) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: :  
Comment:

Elem	Li6707	P_1774
Units	ppm	ppm
Avg	<b>.0794</b>	<b>.0949</b>
Stddev	.0004	.0004
%RSD	.5400	.4450
#1	.0798	.0950
#2	.0790	.0945
#3	.0796	.0953

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	117160.	25486.	3160.9	5069.6
Stddev	703.	322.	40.5	64.6
%RSD	.59981	1.2638	1.2819	1.2735
#1	117260.	25413.	3189.0	5115.4
#2	116420.	25838.	3179.3	5097.5
#3	117810.	25206.	3114.5	4995.7

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Zoom In  
Zoom Out

Sample Name: MP13762-SD1 Acquired: 4/2/2019 21:06:30 Type: Unk  
Method: SGS No Vlave3(v343) Mode: CONC Corr. Factor: 5.000000  
User: admin Custom ID1: :  
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.0296</b>	<b>-0.0000</b>	<b>.0005</b>	<b>.0002</b>	<b>-0.0002</b>	<b>.0144</b>	<b>.0776</b>	<b>.0045</b>	<b>-0.0051</b>
Stddev	.0011	.0000	.0007	.0010	.0014	.0005	.0002	.0009	.0016
%RSD	3.748	262.1	137.8	525.7	940.0	3.388	.3128	20.03	31.59
#1	.0289	-0.0000	.0009	-0.0007	-0.0004	.0139	.0778	.0054	-0.0036
#2	.0289	-0.0000	-0.0003	.0000	-0.0014	.0144	.0776	.0036	-0.0050
#3	.0309	.0000	.0010	.0013	.0014	.0149	.0774	.0046	-0.0068

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.0039</b>	<b>.0125</b>	<b>-0.0007</b>	<b>.0118</b>	<b>-0.0028</b>	<b>-0.0037</b>	<b>.0028</b>	<b>.1111</b>	<b>154.9</b>
Stddev	.0003	.0004	.0053	.0058	.0053	.0066	.0028	.0064	.4
%RSD	8.761	3.213	783.1	49.19	191.5	176.2	99.64	5.718	2503
#1	.0042	.0126	.0053	.0054	-0.0077	-0.0103	.0053	.1149	155.3
#2	.0040	.0129	-0.0047	.0168	.0029	-0.0039	-0.0002	.1147	154.6
#3	.0035	.0121	-0.0026	.0132	-0.0035	.0029	.0034	.1038	154.8

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.2094</b>	<b>436.1</b>	<b>135.2</b>	<b>F 3171.</b>	<b>1.548</b>	<b>.0043</b>	<b>1.730</b>	<b>.0004</b>	<b>2.629</b>
Stddev	.0111	.8	.2	14.	.002	.0004	.004	.0003	.002
%RSD	5.322	.1913	.1406	4.355	.1346	8.678	.2545	80.10	0.763
#1	.2078	436.9	135.0	3185.	1.549	.0039	1.732	.0005	2.629
#2	.2213	435.2	135.1	3170.	1.545	.0043	1.732	.0007	2.631
#3	.1992	436.2	135.4	3157.	1.549	.0046	1.724	.0001	2.628

Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.0060</b>	<b>.0039</b>	<b>-0.0030</b>	<b>310.1</b>	<b>.0081</b>	<b>.0781</b>	<b>.0925</b>
Stddev	.0008	.0034	.0010	.7	.0027	.0045	.0093
%RSD	13.09	87.76	34.42	2317	33.15	5.735	10.00
#1	.0053	.0049	-0.0042	310.9	.0083	.0732	.0925
#2	.0060	.0067	-0.0024	309.6	.0106	.0819	.1018
#3	.0068	.0001	-0.0024	309.7	.0053	.0791	.0833

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Zoom In  
Zoom Out

Sample Name: MP13762-SD1 Acquired: 4/2/2019 21:06:30 Type: Unk  
Method: SGS No Vlave3(v343) Mode: CONC Corr. Factor: 5.000000  
User: admin Custom ID1: :  
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	135000.	26750.	3639.9	6073.4
Stddev	565.	38.	9.4	7.6
%RSD	4.1875	.14090	.25728	.12434
#1	134430.	26754.	3639.1	6069.6
#2	135020.	26786.	3631.0	6068.4
#3	135560.	26711.	3649.7	6082.1

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Zoom In  
Zoom Out

Sample Name: JC85326-2 Acquired: 4/2/2019 21:11:49 Type: Unk  
Method: SGS No Vlave3(v343) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: :  
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.0280</b>	<b>.0000</b>	<b>.0002</b>	<b>.0004</b>	<b>.0010</b>	<b>.0070</b>	<b>.0746</b>	<b>.0021</b>	<b>-0.0011</b>
Stddev	.0002	.0000	.0002	.0003	.0001	.0001	.0003	.0002	.0003
%RSD	.7596	97.05	79.52	71.86	13.33	2.147	.3436	11.44	30.38
#1	.0282	.0001	.0001	.0001	.0010	.0069	.0744	.0023	-0.0013
#2	.0278	-0.0000	.0004	.0005	.0008	.0068	.0748	.0019	-0.0012
#3	.0280	.0000	.0001	.0005	.0010	.0071	.0748	.0019	-0.0007

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.0020</b>	<b>.0208</b>	<b>-0.0013</b>	<b>.0094</b>	<b>-0.0026</b>	<b>.0051</b>	<b>.0037</b>	<b>.1177</b>	<b>159.5</b>
Stddev	.0003	.0002	.0006	.0017	.0010	.0023	.0005	.0071	.8
%RSD	15.79	.9584	50.21	18.16	39.10	45.70	12.48	6.022	.5111
#1	.0017	.0210	-0.0020	.0088	-0.0025	.0031	.0039	.1179	159.4
#2	.0020	.0206	-0.0010	.0113	-0.0037	.0077	.0041	.1106	158.8
#3	.0023	.0210	-0.0008	.0081	-0.0017	.0046	.0032	.1248	160.4

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.1996</b>	<b>F 488.9</b>	<b>152.4</b>	<b>****</b>	<b>1.685</b>	<b>.0042</b>	<b>1.805</b>	<b>-0.0008</b>	<b>2.868</b>
Stddev	.0024	2.3	.6	----	.015	.0001	.013	.0007	.017
%RSD	1.185	.4801	.3966	----	.8960	1.525	.7318	92.22	.5955
#1	.1995	488.3	153.0	----	1.695	.0043	1.813	.0000	2.849
#2	.2020	486.9	151.8	----	1.668	.0042	1.790	-0.0010	2.871
#3	.1973	491.5	152.5	----	1.692	.0043	1.813	-0.0013	2.882

Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.0038</b>	<b>.0023</b>	<b>-0.0014</b>	<b>F 349.9</b>	<b>.0046</b>	<b>.0829</b>	<b>.0942</b>
Stddev	.0006	.0010	.0001	2.2	.0001	.0007	.0007
%RSD	15.52	42.08	7.436	6354	2.186	.8297	.7507
#1	.0032	.0033	-0.0016	351.6	.0045	.0829	.0934
#2	.0043	.0013	-0.0014	347.4	.0046	.0822	.0946
#3	.0039	.0025	-0.0013	350.5	.0047	.0835	.0945

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Sample Name: JC85326-2 Acquired: 4/2/2019 21:11:49 Type: Unk  
 Method: SGS No Vlave3(v343) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: : :  
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	117420.	25315.	3190.5	5092.3
Stddev	247.	166.	18.9	30.8
%RSD	.20995	.65756	.59172	.60426
#1	117670.	25335.	3177.6	5073.4
#2	117390.	25471.	3212.2	5127.8
#3	117180.	25139.	3181.8	5075.7

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Sample Name: JC85326-3 Acquired: 4/2/2019 21:17:19 Type: Unk  
 Method: SGS No Vlave3(v343) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: : :  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0315	.0000	.0001	-0.0000	.0017	.0093	.0804	.0022
Stddev	.0003	.0000	.0001	.0001	.0003	.0002	.0005	.0002
%RSD	.8016	165.1	68.85	463.3	16.23	2.147	.6092	7.795
#1	.0312	-0.0000	.0002	.0001	.0017	.0095	.0798	.0024
#2	.0316	.0000	.0002	-0.0001	.0014	.0094	.0807	.0020
#3	.0317	.0001	.0000	-0.0000	.0019	.0091	.0806	.0021
Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0009	.0021	.0203	-0.0011	.0068	F -.0035	-0.0008	.0037
Stddev	.0003	.0002	.0003	.0003	.0004	.0009	.0026	.0008
%RSD	31.46	11.53	1.626	30.20	5.217	24.22	309.2	21.81
#1	-0.0009	.0024	.0205	-0.0012	.0064	-0.0030	-0.0032	.0046
#2	-0.0011	.0019	.0200	-0.0013	.0071	-0.0045	-0.0013	.0031
#3	-0.0006	.0020	.0206	-0.0007	.0069	-0.0031	.0020	.0035
Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1330	120.9	2.882	F 345.9	109.3	*****	1.215	.0033
Stddev	.0044	.8	.0026	2.7	.5	----	.002	.0003
%RSD	3.332	.6408	.9187	.7749	.4119	----	.1744	8.882
#1	.1285	120.3	.2860	342.8	108.9	----	1.217	.0032
#2	.1329	121.7	.2876	347.3	109.8	----	1.215	.0030
#3	.1374	120.6	.2912	347.6	109.4	----	1.213	.0036
Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.084	.0015	2.085	.0046	.0007	-0.0016	F 251.8	.0028
Stddev	.002	.0003	.009	.0004	.0003	.0001	1.1	.0013
%RSD	.1127	22.12	4.194	7.742	48.33	5.710	.4291	46.29
#1	2.082	.0012	2.075	.0044	.0009	-0.0017	251.8	.0037
#2	2.084	.0015	2.092	.0044	.0008	-0.0016	252.8	.0033
#3	2.087	.0019	2.089	.0050	.0003	-0.0015	250.7	.0013

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7.2  
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Sample Name: JC85326-3 Acquired: 4/2/2019 21:17:19 Type: Unk  
 Method: SGS No Vlave3(v343) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: : :  
 Comment:

Elem	Li6707	P_1774		
Units	ppm	ppm		
Avg	.0562	.0940		
Stddev	.0007	.0014		
%RSD	1.176	1.505		
#1	.0563	.0955		
#2	.0555	.0938		
#3	.0568	.0927		
Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	120920.	25909.	3272.1	5269.5
Stddev	734.	176.	4.3	3.1
%RSD	.60738	.67770	.13273	.05943
#1	121720.	26107.	3271.9	5266.2
#2	120760.	25771.	3267.8	5272.5
#3	120270.	25850.	3276.5	5269.8

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Sample Name: JC85326-4 Acquired: 4/2/2019 21:22:41 Type: Unk  
 Method: SGS No Vlave3(v343) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: : :  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0321	.0000	.0001	-0.0000	.0015	.0194	.0814	.0016
Stddev	.0001	.0000	.0000	.0003	.0004	.0000	.0001	.0002
%RSD	.1991	143.6	58.91	1303.	24.85	.1253	.1508	10.18
#1	.0322	.0000	.0000	-0.0000	.0020	.0195	.0813	.0015
#2	.0321	.0000	.0001	.0002	.0014	.0194	.0816	.0018
#3	.0321	-0.0000	.0001	-0.0003	.0013	.0194	.0814	.0015
Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0012	.0015	.0128	-0.0006	.0055	F -.0036	-0.0000	.0026
Stddev	.0005	.0001	.0001	.0008	.0024	.0013	.0036	.0012
%RSD	44.69	7.715	1.089	145.7	43.32	34.80	10880.	46.25
#1	-0.0016	.0016	.0127	-0.0006	.0028	-0.0023	-0.0042	.0013
#2	-0.0014	.0016	.0127	.0003	.0072	-0.0039	.0025	.0036
#3	-0.0006	.0014	.0129	-0.0014	.0065	-0.0047	.0016	.0028
Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1318	114.4	3.015	F 318.9	101.0	*****	1.127	.0029
Stddev	.0045	.7	.0012	.5	.3	----	.004	.0001
%RSD	3.413	.5914	.3883	.1488	.3216	----	.3426	4.802
#1	.1267	113.6	.3003	318.3	101.1	----	1.125	.0028
#2	.1340	114.9	.3017	319.1	100.6	----	1.125	.0030
#3	.1348	114.8	.3026	319.2	101.3	----	1.132	.0031
Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.176	-0.0012	1.928	.0052	.0016	-0.0017	F 232.6	.0031
Stddev	.009	.0006	.004	.0024	.0005	.0001	.6	.0007
%RSD	.3940	49.72	.2218	47.00	31.83	4.721	.2365	23.01
#1	2.166	-0.0007	1.928	.0043	.0022	-0.0016	232.2	.0024
#2	2.180	-0.0009	1.924	.0079	.0013	-0.0017	232.5	.0031
#3	2.181	-0.0018	1.933	.0033	.0013	-0.0017	233.2	.0038

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Sample Name: JC85326-4 Acquired: 4/2/2019 21:22:41 Type: Unk  
Method: SGS No Valve3(v343) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: :  
Comment:

Elem	Li6707	P_1774		
Units	ppm	ppm		
Avg	<b>.0509</b>	<b>.0909</b>		
Stddev	.0006	.0007		
%RSD	1.146	.7574		
#1	.0516	.0916		
#2	.0505	.0903		
#3	.0507	.0906		
Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	123720.	26032.	3311.4	5338.7
Stddev	273.	104.	5.6	5.7
%RSD	.22026	.39778	.16841	.10723
#1	123480.	26110.	3317.7	5342.0
#2	123680.	26073.	3307.2	5341.9
#3	124020.	25915.	3309.2	5332.1

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Sample Name: CCV Acquired: 4/2/2019 21:28:06 Type: QC  
Method: SGS No Valve3(v343) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: :  
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>2.041</b>	<b>2.023</b>	<b>2.025</b>	<b>2.016</b>	<b>2.054</b>	<b>1.992</b>	<b>2.093</b>	<b>2.056</b>	<b>2.471</b>
Stddev	.016	.016	.006	.004	.010	.009	.008	.006	.0013
%RSD	.7694	.7796	.3202	.2102	.4685	.4283	.3633	.2943	.5279
#1	2.026	2.009	2.017	2.013	2.047	1.993	2.089	2.049	2.459
#2	2.039	2.020	2.028	2.015	2.050	1.983	2.088	2.057	2.469
#3	2.057	2.040	2.029	2.021	2.065	2.000	2.102	2.061	2.485
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value Range									
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>2.041</b>	<b>2.041</b>	<b>1.998</b>	<b>2.095</b>	<b>2.044</b>	<b>1.999</b>	<b>2.034</b>	<b>39.62</b>	<b>39.80</b>
Stddev	.007	.002	.006	.008	.007	.008	.007	.29	.32
%RSD	.3635	.1071	.2874	.3971	.3214	.4054	.3297	.7289	.8157
#1	2.040	2.039	1.991	2.087	2.037	1.990	2.027	39.35	39.49
#2	2.034	2.042	2.001	2.093	2.046	2.002	2.039	39.59	39.77
#3	2.048	2.043	2.001	2.103	2.050	2.006	2.038	39.92	40.13
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value Range									
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>39.36</b>	<b>39.31</b>	<b>39.52</b>	<b>38.47</b>	<b>2.053</b>	<b>2.044</b>	<b>5.196</b>	<b>2.053</b>	<b>2.040</b>
Stddev	.38	.40	.21	.26	.007	.004	.018	.006	.015
%RSD	.9719	1.006	.5435	.6863	.3214	.2156	.3499	.3073	.7369
#1	39.07	38.95	39.40	38.27	2.045	2.039	5.175	2.046	2.027
#2	39.21	39.24	39.40	38.37	2.055	2.047	5.208	2.052	2.037
#3	39.79	39.74	39.77	38.77	2.058	2.045	5.206	2.059	2.057
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value Range									

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7.2  
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Sample Name: CCV Acquired: 4/2/2019 21:28:06 Type: QC  
Method: SGS No Valve3(v343) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: :  
Comment:

Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>2.066</b>	<b>2.026</b>	<b>2.038</b>	<b>1.991</b>	<b>2.027</b>	<b>2.064</b>	<b>1.998</b>
Stddev	.008	.006	.010	.012	.009	.011	.010
%RSD	.3674	.2909	.4988	.6066	.4438	.5330	.4917
#1	2.062	2.020	2.040	1.978	2.017	2.053	1.988
#2	2.062	2.032	2.027	1.993	2.029	2.065	1.997
#3	2.075	2.026	2.047	2.002	2.034	2.075	2.008
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value Range							
Int. Std.	Y_3600	Y_3710	Y_2243	In2306			
Units	Cts/S	Cts/S	Cts/S	Cts/S			
Avg	146590.	27274.	3981.4	6866.7			
Stddev	492.	169.	6.7	11.1			
%RSD	.33532	.62009	.16790	.16175			
#1	146830.	27408.	3988.9	6879.3			
#2	146920.	27329.	3976.1	6862.5			
#3	146030.	27084.	3979.3	6858.4			

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Sample Name: CCB Acquired: 4/2/2019 21:32:58 Type: QC  
Method: SGS No Valve3(v343) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: :  
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.0002</b>	<b>.0001</b>	<b>-0.0000</b>	<b>.0002</b>	<b>-0.0001</b>	<b>-0.0001</b>	<b>.0001</b>	<b>-0.0000</b>	<b>-0.0007</b>
Stddev	.0000	.0000	.0002	.0003	.0002	.0003	.0000	.0002	.0002
%RSD	5.504	26.53	675.9	132.0	345.7	205.4	8.095	482.2	34.87
#1	.0002	.0001	.0001	.0005	-0.0001	-0.0001	.0001	-0.0000	-0.0010
#2	.0002	.0001	-0.0002	-0.0000	.0002	.0001	.0001	-0.0003	-0.0006
#3	.0002	.0001	-0.0000	.0002	-0.0003	-0.0004	.0001	.0002	-0.0006
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.0000</b>	<b>.0002</b>	<b>-0.0003</b>	<b>.0004</b>	<b>-0.0000</b>	<b>-0.0002</b>	<b>.0006</b>	<b>-0.0028</b>	<b>.0003</b>
Stddev	.0002	.0001	.0007	.0005	.0008	.0019	.0007	.0044	.0023
%RSD	1329.	46.28	211.2	132.2	2295.	984.4	119.1	156.5	732.4
#1	-0.0000	.0003	-0.0002	.0006	.0007	-0.0023	.0013	-0.0065	-0.0005
#2	.0002	.0001	.0003	.0007	-0.0009	.0004	.0000	-0.0038	.0029
#3	-0.0001	.0002	-0.0011	-0.0002	.0001	.0013	.0003	.0020	-0.0015
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.0011</b>	<b>.0107</b>	<b>.0668</b>	<b>.3281</b>	<b>.0020</b>	<b>.0003</b>	<b>.0004</b>	<b>.0000</b>	<b>.0001</b>
Stddev	.0012	.0024	.0268	.0087	.0004	.0002	.0005	.0002	.0000
%RSD	109.7	22.76	40.08	2.639	18.21	55.73	125.6	104.0	53.60
#1	.0024	.0122	.0448	.3315	.0024	.0005	.0010	-0.0001	.0001
#2	.0007	.0121	.0966	.3345	.0020	.0002	.0002	.0002	.0001
#3	.0001	.0079	.0591	.3183	.0017	.0002	.0000	-0.0000	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

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Sample Name: CCB Acquired: 4/2/2019 21:32:58 Type: QC  
Method: SGS No Valve3(v343) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: : :  
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001	.0006	.0001	-.0007	-.0000	.0005	.0020
Stddev	.0002	.0009	.0001	.0018	.0012	.0005	.0006
%RSD	151.0	151.2	73.47	272.0	408.7	96.39	28.71

#1	-.0000	-.0003	.0003	.0009	-.0000	.0010	.0022
#2	.0004	.0007	.0001	-.0003	.0011	.0005	.0024
#3	.0000	.0015	.0000	-.0026	-.0012	.0000	.0013

Check ? High Limit Low Limit  
Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

Int. Std. Units	Y_3600 Cts/S	Y_3710 Cts/S	Y_2243 Cts/S	In2306 Cts/S
Avg	153110.	27098.	4034.0	7416.1
Stddev	707.	591.	7.1	13.8
%RSD	.46146	2.1795	.17517	.18618

#1	153490.	27506.	4026.1	7407.0
#2	153550.	26421.	4036.4	7409.3
#3	152300.	27368.	4039.6	7432.0

Sample Name: JC85326-5 Acquired: 4/2/2019 21:38:15 Type: Unk  
Method: SGS No Valve3(v343) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: : :  
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0322	.0001	.0002	.0003	.0009	.0038	.0834	.0015
Stddev	.0001	.0000	.0001	.0002	.0002	.0001	.0001	.0001
%RSD	.4119	37.21	69.35	58.23	27.82	3.100	.1781	6.061

#1	.0321	.0001	.0002	.0004	.0007	.0037	.0835	.0016
#2	.0323	.0000	.0002	.0004	.0011	.0040	.0833	.0015
#3	.0321	.0001	.0000	.0001	.0007	.0038	.0835	.0014

Elem Ag3280 V\_2924 Zn2062 As1890 Tl1908 Pb2203 Se1960 Sb2068

Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0012	.0020	.0093	-.0000	.0068	F -.0044	.0014	.0023
Stddev	.0003	.0001	.0002	.0008	.0011	.0007	.0038	.0010
%RSD	23.75	5.585	1.827	5164.	16.24	15.95	267.6	44.95

#1	-.0012	.0018	.0091	-.0008	.0057	-.0052	-.0013	.0011
#2	-.0009	.0020	.0094	.0002	.0069	-.0038	.0058	.0028
#3	-.0015	.0021	.0095	.0006	.0079	-.0042	-.0002	.0030

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1360	128.8	2676	F 367.3	117.3	****	1.292	.0032
Stddev	.0045	.3	.0009	1.2	.0	----	.004	.0000
%RSD	3.275	.2471	.3392	.3250	.0348	----	.2894	1.562

#1	.1362	128.8	2666	366.8	117.3	----	1.287	.0031
#2	.1404	128.5	2679	368.6	117.3	----	1.294	.0032
#3	.1315	129.1	2684	366.3	117.2	----	1.294	.0032

Elem Si2124 Sn1899 Sr4077 Ti3349 W\_2079 Zr3391 S\_1820 Bi2230

Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.150	-.0000	2.220	.0041	.0016	-.0016	F 267.9	.0022
Stddev	.007	.0006	.001	.0004	.0010	.0001	.1	.0011
%RSD	3.279	1669.	.0594	10.55	64.51	3.902	.0376	52.48

#1	2.157	-.0007	2.220	.0045	.0018	-.0016	268.0	.0010
#2	2.151	-.0001	2.221	.0043	.0025	-.0016	267.8	.0023
#3	2.143	.0006	2.218	.0036	.0005	-.0015	267.9	.0033

7.2  
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Sample Name: JC85326-5 Acquired: 4/2/2019 21:38:15 Type: Unk  
Method: SGS No Valve3(v343) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: : :  
Comment:

Elem	Li6707	P_1774
Units	ppm	ppm
Avg	.0612	.0908
Stddev	.0008	.0006
%RSD	1.280	.7066

#1	.0603	.0905
#2	.0615	.0915
#3	.0618	.0904

Int. Std. Units	Y_3600 Cts/S	Y_3710 Cts/S	Y_2243 Cts/S	In2306 Cts/S
Avg	119640.	25296.	3231.8	5202.2
Stddev	171.	58.	6.0	3.4
%RSD	.14328	.22980	.18467	.06599

#1	119500.	25342.	3231.1	5202.1
#2	119830.	25231.	3226.3	5198.8
#3	119600.	25316.	3238.1	5205.7

Sample Name: JC85326-6 Acquired: 4/2/2019 21:43:37 Type: Unk  
Method: SGS No Valve3(v343) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: : :  
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0278	.0000	.0002	.0003	.0009	.0085	.0729	.0016
Stddev	.0002	.0001	.0001	.0004	.0002	.0001	.0001	.0001
%RSD	.5519	123.1	88.50	129.0	25.00	1.398	.1839	8.353

#1	.0280	.0001	.0000	.0005	.0007	.0084	.0727	.0017
#2	.0279	.0001	.0002	.0007	.0008	.0086	.0730	.0014
#3	.0277	-.0000	.0003	-.0001	.0011	.0085	.0729	.0015

Elem Ag3280 V\_2924 Zn2062 As1890 Tl1908 Pb2203 Se1960 Sb2068

Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0013	.0019	.0106	-.0011	.0060	F -.0055	.0035	.0027
Stddev	.0002	.0003	.0000	.0011	.0011	.0023	.0024	.0019
%RSD	14.00	15.42	.0701	107.7	17.64	41.49	67.33	69.47

#1	-.0011	.0016	.0106	.0002	.0068	-.0050	.0029	.0042
#2	-.0014	.0022	.0106	-.0013	.0048	-.0035	.0061	.0033
#3	-.0015	.0019	.0106	-.0021	.0064	-.0080	.0015	.0006

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1431	159.8	2192	F 485.4	156.0	****	1.700	.0043
Stddev	.0039	1.0	.0005	.3	.6	----	.008	.0002
%RSD	2.751	.6119	.2101	.0628	.3862	----	.4525	4.219

#1	.1398	160.3	.2196	485.6	156.7	----	1.692	.0041
#2	.1475	158.7	.2187	485.1	155.9	----	1.701	.0044
#3	.1422	160.5	.2193	485.6	155.5	----	1.708	.0043

Elem Si2124 Sn1899 Sr4077 Ti3349 W\_2079 Zr3391 S\_1820 Bi2230

Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.856	-.0020	2.854	.0065	.0017	-.0015	F 352.8	.0036
Stddev	.007	.0009	.026	.0032	.0007	.0001	1.3	.0002
%RSD	3.652	46.02	.9299	49.86	44.62	6.602	.3731	4.602

#1	1.849	-.0013	2.850	.0102	.0024	-.0015	351.5	.0038
#2	1.858	-.0030	2.882	.0046	.0018	-.0016	352.8	.0035
#3	1.862	-.0016	2.830	.0046	.0009	-.0014	354.1	.0035

Sample Name: JC85326-6 Acquired: 4/2/2019 21:43:37 Type: Unk  
Method: SGS No Valve3(v343) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: : :  
Comment:

Elem	Li6707	P_1774		
Units	ppm	ppm		
Avg	<b>.0799</b>	<b>.0942</b>		
Stddev	.0007	.0015		
%RSD	.9255	1.629		
#1	.0807	.0944		
#2	.0796	.0957		
#3	.0793	.0926		
Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	117510.	24973.	3169.4	5053.8
Stddev	192.	53.	10.6	10.9
%RSD	.16361	.21094	.33517	.21554
#1	117600.	25030.	3180.9	5065.8
#2	117650.	24961.	3167.4	5051.0
#3	117290.	24927.	3160.0	5044.5

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Sample Name: JC85326-7 Acquired: 4/2/2019 21:49:09 Type: Unk  
Method: SGS No Valve3(v343) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: : :  
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.0297</b>	<b>.0001</b>	<b>.0002</b>	<b>.0005</b>	<b>.0029</b>	<b>.0090</b>	<b>.0890</b>	<b>.0024</b>
Stddev	.0002	.0000	.0001	.0002	.0002	.0001	.0004	.0005
%RSD	.6902	27.14	46.31	32.94	5.757	1.405	.4439	19.57
#1	.0298	.0001	.0002	.0005	.0028	.0089	.0888	.0029
#2	.0298	.0001	.0003	.0007	.0029	.0089	.0887	.0022
#3	.0295	.0001	.0001	.0004	.0031	.0091	.0894	.0020
Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-0.0009</b>	<b>.0030</b>	<b>.0154</b>	<b>-0.0007</b>	<b>.0086</b>	F <b>-0.0035</b>	<b>.0030</b>	<b>.0051</b>
Stddev	.0001	.0001	.0003	.0004	.0012	.0010	.0041	.0026
%RSD	7.223	2.867	1.801	52.76	14.30	28.11	138.7	49.91
#1	-0.0009	.0031	.0156	-0.0003	.0093	-0.0032	.0077	.0022
#2	-0.0009	.0031	.0156	-0.0008	.0072	-0.0046	.0001	.0064
#3	-0.0010	.0029	.0151	-0.0011	.0092	-0.0027	.0011	.0068
Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.6682</b>	<b>166.3</b>	<b>.9661</b>	F <b>510.5</b>	<b>165.2</b>	****	<b>1.805</b>	<b>.0048</b>
Stddev	.0077	2.1	.0049	2.2	.2	----	.008	.0005
%RSD	1.154	1.282	.5085	.4328	.1044	----	.4245	10.02
#1	.6662	167.9	.9686	511.3	165.1	----	1.814	.0043
#2	.6768	167.1	.9693	512.1	165.1	----	1.800	.0050
#3	.6618	163.9	.9605	507.9	165.4	----	1.802	.0052
Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>3.015</b>	<b>-0.002</b>	<b>3.080</b>	<b>.0249</b>	<b>.0026</b>	<b>-0.014</b>	F <b>373.7</b>	<b>.0032</b>
Stddev	.018	.0008	.037	.0012	.0011	.0001	1.6	.0011
%RSD	.5813	470.4	1.213	4.654	43.14	5.521	.4378	34.83
#1	3.035	.0006	3.109	.0237	.0034	-0.0014	375.1	.0038
#2	3.006	-0.001	3.093	.0250	.0032	-0.0013	374.0	.0019
#3	3.004	-0.010	3.038	.0260	.0013	-0.0015	371.9	.0039

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7.2  
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Sample Name: JC85326-7 Acquired: 4/2/2019 21:49:09 Type: Unk  
Method: SGS No Valve3(v343) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: : :  
Comment:

Elem	Li6707	P_1774		
Units	ppm	ppm		
Avg	<b>.0834</b>	<b>.1414</b>		
Stddev	.0010	.0015		
%RSD	1.197	1.075		
#1	.0833	.1422		
#2	.0844	.1424		
#3	.0825	.1397		
Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	116060.	24954.	3139.2	5004.0
Stddev	535.	129.	10.8	14.3
%RSD	.46098	.51737	.34433	.28651
#1	116210.	24899.	3126.7	4987.8
#2	116510.	24862.	3145.7	5009.5
#3	115470.	25102.	3145.2	5014.8

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Sample Name: JC85326-8 Acquired: 4/2/2019 21:54:38 Type: Unk  
Method: SGS No Valve3(v343) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: : :  
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.0267</b>	<b>.0000</b>	<b>.0001</b>	<b>.0001</b>	<b>.0007</b>	<b>.0044</b>	<b>.0717</b>	<b>.0019</b>
Stddev	.0001	.0000	.0001	.0002	.0002	.0001	.0003	.0005
%RSD	.5445	42.93	95.48	240.4	23.53	3.030	.4580	28.00
#1	.0267	.0000	.0003	-0.0000	.0005	.0046	.0716	.0014
#2	.0268	.0000	.0001	-0.0000	.0009	.0044	.0714	.0017
#3	.0266	.0000	.0001	.0003	.0007	.0043	.0720	.0024
Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-0.0010</b>	<b>.0021</b>	<b>.0075</b>	<b>-0.0014</b>	<b>.0073</b>	F <b>-0.0053</b>	<b>.0017</b>	<b>.0031</b>
Stddev	.0002	.0002	.0000	.0012	.0023	.0005	.0012	.0010
%RSD	24.99	11.81	.0644	88.19	31.11	10.15	72.34	33.95
#1	-0.0012	.0019	.0075	-0.0016	.0047	-0.0047	.0031	.0037
#2	-0.0010	.0021	.0075	-0.0024	.0091	-0.0058	.0011	.0019
#3	-0.0007	.0024	.0075	-0.0001	.0081	-0.0055	.0009	.0036
Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.0952</b>	<b>154.3</b>	<b>1.765</b>	F <b>465.1</b>	<b>151.2</b>	****	<b>1.646</b>	<b>.0038</b>
Stddev	.0044	1.1	.0034	.7	.5	----	.005	.0001
%RSD	4.602	.7426	1.901	.1458	.2979	----	.3010	1.572
#1	.0978	153.3	1.770	465.5	150.7	----	1.652	.0039
#2	.0976	155.6	1.796	465.6	151.6	----	1.642	.0037
#3	.0901	154.2	1.729	464.4	151.4	----	1.645	.0038
Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>1.905</b>	<b>-0.004</b>	<b>2.789</b>	<b>.0039</b>	<b>.0020</b>	<b>-0.013</b>	F <b>340.4</b>	<b>.0020</b>
Stddev	.217	.0006	.061	.0020	.0013	.0002	.7	.0012
%RSD	11.37	146.6	2.181	52.31	65.10	16.46	.2061	59.00
#1	1.783	.0001	2.859	.0028	.0015	-0.0013	339.9	.0009
#2	1.778	-0.003	2.756	.0026	.0010	-0.0012	340.2	.0018
#3	2.155	-0.011	2.751	.0062	.0035	-0.0016	341.2	.0033

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Sample Name: JC85326-8 Acquired: 4/2/2019 21:54:38 Type: Unk  
Method: SGS No Vlave3(v343) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: : :  
Comment:

Table with 3 columns: Elem, Units, Avg, Stddev, %RSD. Rows include Li6707, P\_1774, #1, #2, #3, and Int. Std. Y\_3600, Y\_3710, Y\_2243, In2306.

Table with 5 columns: Elem, Units, Avg, Stddev, %RSD. Rows include Ag3280, V\_2924, Zn2062, As1890, Tl1908, Pb2203, Se1960, Sb2068, #1, #2, #3.

Sample Name: JC85326-9 Acquired: 4/2/2019 22:00:06 Type: Unk  
Method: SGS No Vlave3(v343) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: : :  
Comment:

Table with 9 columns: Elem, Units, Avg, Stddev, %RSD. Rows include Ba4554, Be3130, Cd2288, Co2286, Cr2677, Cu3247, Mn2576, Ni2316, #1, #2, #3.

Table with 9 columns: Elem, Units, Avg, Stddev, %RSD. Rows include Al3961, Ca3179, Fe2599, Mg2790, K\_7664, Na5895, B\_2089, Mo2020, #1, #2, #3.

7.2  
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Sample Name: JC85326-9 Acquired: 4/2/2019 22:00:06 Type: Unk  
Method: SGS No Vlave3(v343) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: : :  
Comment:

Table with 3 columns: Elem, Units, Avg, Stddev, %RSD. Rows include Li6707, P\_1774, #1, #2, #3, and Int. Std. Y\_3600, Y\_3710, Y\_2243, In2306.

Table with 5 columns: Elem, Units, Avg, Stddev, %RSD. Rows include V\_2924, Zn2062, As1890, Tl1908, Pb2203, Se1960, Sb2068, Al3961, Ca3179, #1, #2, #3.

Sample Name: JC85326-11 Acquired: 4/2/2019 22:05:36 Type: Unk  
Method: SGS No Vlave3(v343) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: : :  
Comment:

Table with 10 columns: Elem, Units, Avg, Stddev, %RSD. Rows include Ba4554, Be3130, Cd2288, Co2286, Cr2677, Cu3247, Mn2576, Ni2316, Ag3280, #1, #2, #3.

Table with 10 columns: Elem, Units, Avg, Stddev, %RSD. Rows include Fe2599, Mg2790, K\_7664, Na5895, B\_2089, Mo2020, Si2124, Sn1899, Sr4077, #1, #2, #3.

Sample Name: JC85326-11 Acquired: 4/2/2019 22:05:36 Type: Unk  
 Method: SGS No Vlave3(v343) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: : :  
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	155180.	27365.	4070.5	7496.5
Stddev	287.	126.	15.8	31.1
%RSD	.18464	.46191	.38857	.41540
#1	155130.	27223.	4066.0	7480.5
#2	155490.	27406.	4057.5	7476.6
#3	154920.	27466.	4088.1	7532.4

Sample Name: JC85326-1F Acquired: 4/2/2019 22:10:51 Type: Unk  
 Method: SGS No Vlave3(v343) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: : :  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0285	.0000	.0000	.0002	.0003	.0041	.0711	.0015
Stddev	.0000	.0000	.0000	.0003	.0002	.0001	.0000	.0003
%RSD	.1537	47.42	114.5	139.0	52.34	3.159	.0058	21.49
#1	.0285	.0000	.0001	.0005	.0005	.0041	.0711	.0011
#2	.0285	.0000	.0001	.0000	.0004	.0039	.0711	.0016
#3	.0284	.0000	-.0000	.0000	.0001	.0042	.0711	.0018
Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0014	.0017	.0077	-.0006	.0063	F -.0067	.0006	.0032
Stddev	.0006	.0001	.0001	.0021	.0010	.0005	.0009	.0013
%RSD	43.20	5.043	1.920	327.3	16.50	7.097	156.3	41.31
#1	-.0013	.0017	.0075	.0006	.0066	-.0072	.0014	.0047
#2	-.0008	.0018	.0078	.0006	.0051	-.0062	-.0004	.0026
#3	-.0020	.0017	.0077	-.0030	.0071	-.0068	.0006	.0023
Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0175	147.8	.0178	F 439.0	145.3	*****	1.577	.0039
Stddev	.0092	2.3	.0013	.9	.1	----	.001	.0001
%RSD	52.58	1.553	7.077	.2011	.0929	----	.0587	3.820
#1	.0258	148.5	.0164	439.0	145.3	----	1.577	.0040
#2	.0076	149.6	.0182	439.9	145.4	----	1.578	.0037
#3	.0193	145.2	.0188	438.1	145.2	----	1.576	.0039
Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.555	-.0004	2.656	.0003	.0015	-.0013	F 325.4	.0039
Stddev	.001	.0006	.050	.0002	.0015	.0001	.8	.0006
%RSD	.0718	131.8	1.885	74.31	103.6	4.516	.2355	16.06
#1	1.556	.0001	2.623	.0000	.0029	-.0014	326.2	.0034
#2	1.554	-.0004	2.713	.0004	-.0001	-.0013	325.3	.0046
#3	1.554	-.0011	2.631	.0004	.0017	-.0013	324.7	.0037

7.2  
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Sample Name: JC85326-1F Acquired: 4/2/2019 22:10:51 Type: Unk  
 Method: SGS No Vlave3(v343) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: : :  
 Comment:

Elem	Li6707	P_1774		
Units	ppm	ppm		
Avg	.0708	.0660		
Stddev	.0006	.0009		
%RSD	.7773	1.390		
#1	.0707	.0666		
#2	.0714	.0664		
#3	.0703	.0649		
Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	117960.	24856.	3195.1	5103.7
Stddev	159.	91.	6.1	4.1
%RSD	.13439	.36799	.19141	.07966
#1	118010.	24917.	3198.3	5106.5
#2	118090.	24751.	3198.9	5105.6
#3	117790.	24901.	3188.0	5099.1

Sample Name: JC85326-2F Acquired: 4/2/2019 22:16:20 Type: Unk  
 Method: SGS No Vlave3(v343) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: : :  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0268	.0001	.0001	-.0000	.0003	.0031	.0670	.0012
Stddev	.0002	.0000	.0002	.0001	.0005	.0001	.0002	.0001
%RSD	.6318	12.83	259.0	465.2	195.1	4.109	.2845	5.165
#1	.0270	.0001	.0003	.0000	-.0003	.0030	.0669	.0012
#2	.0267	.0001	.0001	.0001	.0006	.0031	.0669	.0013
#3	.0267	.0001	-.0001	-.0002	.0005	.0033	.0672	.0012
Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0016	.0017	.0084	-.0016	.0078	F -.0077	.0012	.0046
Stddev	.0004	.0003	.0002	.0009	.0018	.0016	.0004	.0007
%RSD	27.72	16.88	2.425	53.70	23.48	20.22	36.90	14.63
#1	-.0014	.0016	.0086	-.0026	.0062	-.0086	.0012	.0047
#2	-.0021	.0014	.0085	-.0013	.0073	-.0086	.0007	.0052
#3	-.0013	.0020	.0082	-.0009	.0098	-.0059	.0016	.0039
Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0189	154.6	.0122	F 465.0	153.0	*****	1.669	.0041
Stddev	.0022	1.9	.0013	1.2	.1	----	.008	.0001
%RSD	11.78	1.225	10.66	.2566	.0620	----	.4748	2.276
#1	.0164	156.3	.0128	465.5	153.0	----	1.664	.0040
#2	.0206	152.6	.0131	463.6	153.1	----	1.664	.0042
#3	.0197	154.9	.0107	465.8	152.9	----	1.678	.0042
Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.502	-.0015	2.798	.0002	.0017	-.0014	F 342.8	.0023
Stddev	.006	.0008	.032	.0002	.0001	.0001	2.6	.0012
%RSD	.3735	56.33	1.134	121.7	8.563	8.310	.7575	54.00
#1	1.499	-.0006	2.802	.0000	.0019	-.0014	340.9	.0010
#2	1.500	-.0022	2.764	.0001	.0017	-.0013	341.7	.0035
#3	1.509	-.0015	2.827	.0004	.0016	-.0015	345.7	.0024



Sample Name: JC85326-2F Acquired: 4/2/2019 22:16:20 Type: Unk  
Method: SGS No Vlave3(v343) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: : :  
Comment:

Elem	Li6707	P_1774		
Units	ppm	ppm		
Avg	<b>.0743</b>	<b>.0624</b>		
Stddev	.0010	.0012		
%RSD	1.411	1.848		
#1	.0734	.0614		
#2	.0754	.0621		
#3	.0739	.0636		
Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	117380.	24546.	3183.8	5075.3
Stddev	160.	164.	10.8	15.4
%RSD	.13630	.66987	.33800	.30401
#1	117350.	24422.	3193.4	5092.7
#2	117550.	24733.	3185.8	5069.6
#3	117240.	24484.	3172.2	5063.4

Sample Name: JC85326-3F Acquired: 4/2/2019 22:21:50 Type: Unk  
Method: SGS No Vlave3(v343) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: : :  
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	<b>.0308</b>	<b>.0000</b>	<b>-0.0000</b>	<b>-0.0002</b>	<b>.0003</b>	<b>.0063</b>	<b>.0722</b>	<b>.0017</b>		
Stddev	.0002	.0000	.0002	.0003	.0002	.0003	.0002	.0003		
%RSD	.6018	69.03	412.5	188.8	58.52	5.004	.2465	19.84		
#1	.0309	.0000	.0002	-.0003	.0004	.0061	.0724	.0013		
#2	.0306	.0000	-.0002	-.0004	.0001	.0061	.0721	.0019		
#3	.0308	.0000	-.0001	.0002	.0004	.0067	.0720	.0019		
Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	<b>-0.0018</b>	<b>.0017</b>	<b>.0206</b>	<b>-0.0004</b>	<b>.0052</b>	F <b>-0.0053</b>	<b>.0010</b>	<b>.0020</b>		
Stddev	.0007	.0001	.0003	.0013	.0007	.0010	.0007	.0001		
%RSD	39.69	5.464	1.271	315.0	13.28	19.48	71.32	7.258		
#1	-.0014	.0017	.0204	-.0009	.0044	-.0041	.0002	.0021		
#2	-.0026	.0018	.0205	-.0010	.0058	-.0058	.0015	.0019		
#3	-.0013	.0017	.0209	-.0013	.0054	-.0061	.0013	.0021		
Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	<b>.0170</b>	<b>121.4</b>	<b>.0202</b>	F <b>334.1</b>	<b>110.3</b>	*****	<b>1.205</b>	<b>.0033</b>		
Stddev	.0025	.4	.0023	1.2	.2	----	.001	.0001		
%RSD	14.53	.3378	11.16	.3510	.1729	----	.0913	3.955		
#1	.0182	120.9	.0186	332.8	110.2	----	1.206	.0034		
#2	.0142	121.7	.0192	334.7	110.2	----	1.203	.0033		
#3	.0187	121.6	.0228	334.9	110.5	----	1.205	.0032		
Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	<b>1.746</b>	<b>-0.0009</b>	<b>2.086</b>	<b>.0001</b>	<b>.0005</b>	<b>-0.0014</b>	F <b>248.1</b>	<b>.0014</b>		
Stddev	.001	.0008	.003	.0003	.0001	.0002	.4	.0015		
%RSD	.0758	87.74	.1310	283.5	28.22	12.95	.1772	109.3		
#1	1.747	-.0017	2.084	.0002	.0004	-.0012	248.3	-.0002		
#2	1.746	-.0010	2.084	-.0002	.0007	-.0015	248.3	.0028		
#3	1.744	-.0001	2.089	.0003	.0005	-.0014	247.6	.0016		

7.2  
7

Sample Name: JC85326-3F Acquired: 4/2/2019 22:21:50 Type: Unk  
Method: SGS No Vlave3(v343) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: : :  
Comment:

Elem	Li6707	P_1774		
Units	ppm	ppm		
Avg	<b>.0624</b>	<b>.0572</b>		
Stddev	.0004	.0018		
%RSD	.7382	3.131		
#1	.0525	.0582		
#2	.0520	.0582		
#3	.0527	.0551		
Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	120460.	24706.	3275.2	5268.9
Stddev	325.	79.	6.0	8.4
%RSD	.26988	.31808	.18377	.15926
#1	120200.	24793.	3271.2	5267.6
#2	120820.	24683.	3282.1	5277.8
#3	120360.	24641.	3272.3	5261.2

Sample Name: CCV Acquired: 4/2/2019 22:27:06 Type: QC  
Method: SGS No Vlave3(v343) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: : :  
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	<b>2.072</b>	<b>1.988</b>	<b>2.011</b>	<b>2.002</b>	<b>2.028</b>	<b>1.938</b>	<b>2.052</b>	<b>2.057</b>	<b>2.405</b>		
Stddev	.003	.004	.006	.004	.003	.004	.004	.006	.0012		
%RSD	.1321	.2088	.3123	.1744	.1269	.2003	.1701	.2747	.4804		
#1	2.070	1.985	2.006	2.000	2.027	1.943	2.054	2.053	.2418		
#2	2.075	1.992	2.010	2.000	2.026	1.935	2.048	2.055	.2396		
#3	2.070	1.985	2.018	2.006	2.031	1.937	2.054	2.064	.2400		
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass		
Value											
Range											
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	<b>2.004</b>	<b>2.028</b>	<b>1.962</b>	<b>2.072</b>	<b>2.011</b>	<b>1.962</b>	<b>2.027</b>	<b>39.74</b>	<b>39.12</b>		
Stddev	.004	.006	.007	.010	.003	.007	.009	.03	.06		
%RSD	.2207	.2764	.3432	.5010	.1488	.3380	.4627	.0785	.1436		
#1	2.007	2.022	1.959	2.069	2.008	1.957	2.018	39.71	39.06		
#2	1.999	2.028	1.957	2.063	2.012	1.960	2.026	39.76	39.14		
#3	2.007	2.033	1.969	2.083	2.014	1.969	2.037	39.77	39.17		
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass		
Value											
Range											
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	<b>38.04</b>	<b>38.19</b>	<b>39.91</b>	<b>38.93</b>	<b>2.044</b>	<b>2.017</b>	<b>5.167</b>	<b>2.022</b>	<b>2.053</b>		
Stddev	.14	.05	.15	.13	.006	.005	.017	.006	.005		
%RSD	.3655	.1401	.3745	.3248	.3062	.2301	.3216	.3114	.2400		
#1	38.01	38.13	39.77	38.80	2.038	2.013	5.153	2.016	2.051		
#2	38.19	38.18	40.07	39.06	2.044	2.016	5.163	2.022	2.059		
#3	37.91	38.24	39.90	38.94	2.051	2.022	5.186	2.029	2.049		
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass		
Value											
Range											

Sample Name: CCV Acquired: 4/2/2019 22:27:06 Type: QC  
 Method: SGS No Valve3(v343) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: : :  
 Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>2.041</b>	<b>2.001</b>	<b>1.984</b>	<b>1.958</b>	<b>2.002</b>	<b>2.120</b>	<b>1.958</b>
Stddev	.002	.007	.006	.007	.003	.004	.007
%RSD	.0970	.3555	.3221	.3787	.1281	.1682	.3820

#1	2.043	1.995	1.991	1.949	2.000	2.119	1.952
#2	2.039	2.000	1.978	1.961	2.002	2.124	1.954
#3	2.043	2.009	1.983	1.963	2.005	2.118	1.966

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
 Value High Limit Low Limit

Int. Std. Units	Y_3600	Y_3710	Y_2243	In2306
Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>148580.</b>	<b>26276.</b>	<b>3974.1</b>	<b>6833.7</b>
Stddev	319.	102.	7.2	9.5
%RSD	.21494	.38847	.18223	.13874

#1	148490.	26392.	3982.0	6843.4
#2	148940.	26198.	3972.3	6833.3
#3	148320.	26238.	3967.9	6824.5

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Sample Name: CCB Acquired: 4/2/2019 22:31:57 Type: QC  
 Method: SGS No Valve3(v343) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: : :  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.0002</b>	<b>.0001</b>	<b>.0002</b>	<b>.0002</b>	<b>.0001</b>	<b>-.0003</b>	<b>.0001</b>	<b>-.0000</b>	<b>-.0011</b>
Stddev	.0003	.0000	.0001	.0004	.0001	.0002	.0000	.0002	.0003
%RSD	123.4	8.354	46.55	221.3	64.33	82.24	14.79	526.3	31.56

#1	.0004	.0001	.0002	.0003	.0001	-.0003	.0001	.0002	-.0014
#2	-.0001	.0001	.0001	.0004	.0001	-.0005	.0001	-.0000	-.0011
#3	.0003	.0001	.0001	-.0003	.0002	-.0000	.0001	-.0003	-.0007

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
 High Limit Low Limit

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-0.002</b>	<b>.0001</b>	<b>-0.006</b>	<b>-0.001</b>	<b>.0001</b>	<b>-.0013</b>	<b>.0012</b>	<b>.0034</b>	<b>-0.0030</b>
Stddev	.0001	.0000	.0012	.0009	.0006	.0007	.0007	.0038	.0016
%RSD	72.10	14.12	187.7	1199.	648.6	48.50	60.57	111.0	54.36

#1	-.0000	.0001	.0002	.0006	-.0006	-.0006	.0020	-.0007	-.0045
#2	-.0002	.0001	-.0020	-.0012	.0005	-.0015	.0005	.0068	-.0013
#3	-.0003	.0001	-.0001	.0003	.0005	-.0019	.0011	.0042	-.0032

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
 High Limit Low Limit

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-0.000</b>	<b>.0106</b>	<b>.0358</b>	<b>.4376</b>	<b>.0014</b>	<b>.0002</b>	<b>.0009</b>	<b>-0.002</b>	<b>.0001</b>
Stddev	.0012	.0041	.0382	.0040	.0009	.0001	.0002	.0009	.0000
%RSD	653.4	38.91	106.5	9229	61.43	70.07	20.72	582.3	43.72

#1	-.0001	.0067	.0466	.4390	.0024	.0003	.0011	-.0012	.0001
#2	-.0011	.0102	-.0065	.4408	.0012	.0000	.0008	.0006	.0000
#3	.0012	.0150	.0674	.4331	.0007	.0002	.0007	.0001	.0001

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
 High Limit Low Limit

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Sample Name: CCB Acquired: 4/2/2019 22:31:57 Type: QC  
 Method: SGS No Valve3(v343) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: : :  
 Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.0002</b>	<b>.0006</b>	<b>.0002</b>	<b>-0.0005</b>	<b>.0001</b>	<b>-0.0003</b>	<b>.0030</b>
Stddev	.0002	.0004	.0001	.0027	.0006	.0011	.0008
%RSD	77.40	62.41	27.35	499.3	416.8	403.3	25.08

#1	.0000	.0004	.0003	.0005	-.0005	-.0014	.0039
#2	.0003	.0010	.0002	-.0036	.0007	.0009	.0026
#3	.0004	.0003	.0003	.0015	.0002	-.0004	.0026

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
 High Limit Low Limit

Int. Std. Units	Y_3600	Y_3710	Y_2243	In2306
Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>155290.</b>	<b>26377.</b>	<b>4084.2</b>	<b>7475.7</b>
Stddev	403.	51.	12.3	31.1
%RSD	.25947	.19381	.30059	.41666

#1	154920.	26366.	4077.6	7463.4
#2	155720.	26433.	4098.4	7511.1
#3	155220.	26333.	4076.7	7452.6

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Sample Name: JC85326-4F Acquired: 4/2/2019 22:37:13 Type: Unk  
 Method: SGS No Valve3(v343) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: : :  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.0306</b>	<b>.0000</b>	<b>.0001</b>	<b>.0003</b>	<b>.0001</b>	<b>.0105</b>	<b>.0723</b>	<b>.0013</b>
Stddev	.0003	.0000	.0002	.0002	.0002	.0002	.0001	.0005
%RSD	9805	105.3	232.3	66.74	239.1	2.122	.1112	35.99

#1	.0309	.0000	.0002	.0001	-.0002	.0107	.0724	.0008
#2	.0303	-.0000	-.0002	.0005	.0002	.0103	.0722	.0015
#3	.0305	.0000	.0002	.0003	.0002	.0106	.0723	.0017

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
 High Limit Low Limit

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-0.0013</b>	<b>.0014</b>	<b>.0083</b>	<b>-0.0007</b>	<b>.0082</b>	<b>F -.0047</b>	<b>.0012</b>	<b>.0020</b>
Stddev	.0006	.0003	.0002	.0010	.0004	.0015	.0018	.0014
%RSD	45.98	22.99	2.116	141.5	7.026	32.13	151.3	66.75

#1	-.0007	.0013	.0084	-.0019	.0063	-.0030	-.0007	.0016
#2	-.0014	.0011	.0081	-.0001	.0066	-.0056	.0013	.0010
#3	-.0019	.0018	.0085	-.0001	.0057	-.0057	.0030	.0036

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.0182</b>	<b>112.2</b>	<b>.0179</b>	<b>F 302.2</b>	<b>100.5</b>	<b>****</b>	<b>1.103</b>	<b>.0027</b>
Stddev	.0049	.1	.0019	.1	.3	----	.001	.0004
%RSD	26.88	.0499	10.64	.0369	.3188	----	.1211	15.28

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>1.808</b>	<b>-0.014</b>	<b>1.897</b>	<b>.0000</b>	<b>.0014</b>	<b>-0.014</b>	<b>F 227.0</b>	<b>.0022</b>
Stddev	.003	.0003	.009	.0003	.0006	.0000	.2	.0009
%RSD	.1723	20.19	.5002	1425.	43.32	2.222	.0778	43.41

#1	1.811	-.0017	1.901	.0003	.0007	-.0014	226.8	.0018
#2	1.808	-.0012	1.886	.0001	.0019	-.0014	227.2	.0015
#3	1.805	-.0013	1.903	-.0003	.0014	-.0014	227.0	.0033

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Sample Name: JC85326-4F Acquired: 4/2/2019 22:37:13 Type: Unk  
Method: SGS No Vlave3(v343) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: : :  
Comment:

Elem	Li6707	P_1774		
Units	ppm	ppm		
Avg	<b>.0477</b>	<b>.0485</b>		
Stddev	.0001	.0020		
%RSD	.1414	4.091		
#1	.0476	.0469		
#2	.0477	.0507		
#3	.0477	.0478		
Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	121910.	24593.	3293.0	5301.8
Stddev	165.	70.	5.1	10.5
%RSD	.13519	.28564	.15563	.19780
#1	121770.	24545.	3287.9	5291.0
#2	122090.	24560.	3298.1	5302.4
#3	121860.	24673.	3292.9	5311.9

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Sample Name: JC85326-5F Acquired: 4/2/2019 22:42:26 Type: Unk  
Method: SGS No Vlave3(v343) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: : :  
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.0312</b>	<b>.0000</b>	<b>.0001</b>	<b>.0001</b>	<b>.0004</b>	<b>.0037</b>	<b>.0758</b>	<b>.0018</b>
Stddev	.0002	.0000	.0001	.0002	.0001	.0002	.0001	.0001
%RSD	.6251	361.0	69.95	128.5	25.85	5.091	.1023	4.378
#1	.0310	-.0000	.0002	.0002	.0003	.0039	.0759	.0017
#2	.0312	.0001	.0000	-.0001	.0003	.0035	.0758	.0018
#3	.0314	.0000	.0001	.0003	.0005	.0037	.0757	.0018
Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-0.0016</b>	<b>.0018</b>	<b>.0120</b>	<b>-0.0011</b>	<b>.0055</b>	F <b>-0.0051</b>	<b>.0014</b>	<b>.0029</b>
Stddev	.0000	.0002	.0002	.0010	.0021	.0009	.0005	.0006
%RSD	2.683	10.34	1.687	89.32	39.14	17.27	37.61	21.36
#1	-.0016	.0016	.0120	-.0018	.0078	-.0041	.0020	.0033
#2	-.0015	.0020	.0118	.0000	.0035	-.0055	.0010	.0022
#3	-.0015	.0018	.0122	-.0014	.0051	-.0058	.0011	.0033
Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.0548</b>	<b>124.8</b>	<b>.0750</b>	F <b>349.9</b>	<b>117.2</b>	*****	<b>1.262</b>	<b>.0032</b>
Stddev	.0066	.8	.0001	1.2	.3	----	.001	.0002
%RSD	12.10	.6735	.1725	.3569	.2947	----	.0990	4.769
#1	.0600	123.9	.0750	348.7	117.0	----	1.263	.0032
#2	.0473	124.8	.0751	349.8	117.1	----	1.262	.0033
#3	.0571	125.6	.0748	351.2	117.6	----	1.261	.0030
Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>1.875</b>	<b>-0.0015</b>	<b>2.201</b>	<b>.0018</b>	<b>.0001</b>	<b>-0.0014</b>	F <b>260.4</b>	<b>.0020</b>
Stddev	.007	.0008	.008	.0001	.0006	.0000	1.0	.0005
%RSD	.3705	50.53	.3835	6.663	542.4	1.983	.3688	26.72
#1	1.867	-.0007	2.199	.0017	.0008	-.0014	260.4	.0016
#2	1.876	-.0017	2.193	.0020	-.0003	-.0014	261.4	.0026
#3	1.881	-.0022	2.210	.0019	-.0001	-.0014	259.4	.0018

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Sample Name: JC85326-5F Acquired: 4/2/2019 22:42:26 Type: Unk  
Method: SGS No Vlave3(v343) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: : :  
Comment:

Elem	Li6707	P_1774		
Units	ppm	ppm		
Avg	<b>.0567</b>	<b>.0614</b>		
Stddev	.0013	.0007		
%RSD	2.312	1.124		
#1	.0553	.0617		
#2	.0571	.0619		
#3	.0578	.0606		
Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	121030.	24321.	3268.8	5245.2
Stddev	287.	111.	1.5	5.0
%RSD	.23694	.45574	.04530	.09576
#1	120760.	24409.	3269.2	5241.6
#2	121330.	24358.	3267.1	5243.1
#3	121000.	24196.	3270.0	5250.9

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Sample Name: JC85326-6F Acquired: 4/2/2019 22:47:49 Type: Unk  
Method: SGS No Vlave3(v343) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: : :  
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.0266</b>	<b>.0001</b>	<b>.0001</b>	<b>-0.0000</b>	<b>.0001</b>	<b>.0026</b>	<b>.0653</b>	<b>.0018</b>
Stddev	.0002	.0001	.0001	.0000	.0000	.0002	.0002	.0004
%RSD	.6404	81.65	154.2	541.6	9.091	7.129	.2985	20.91
#1	.0268	.0001	.0002	-.0000	.0001	.0026	.0656	.0017
#2	.0266	.0001	-.0000	.0000	.0001	.0024	.0652	.0022
#3	.0264	.0000	.0000	-.0000	.0001	.0028	.0652	.0015
Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-0.0018</b>	<b>.0014</b>	<b>.0057</b>	<b>-0.0015</b>	<b>.0069</b>	F <b>-0.0086</b>	<b>.0014</b>	<b>.0041</b>
Stddev	.0004	.0003	.0002	.0032	.0017	.0008	.0014	.0017
%RSD	20.07	21.39	4.164	216.1	24.72	9.493	95.51	40.45
#1	-.0020	.0011	.0060	-.0025	.0065	-.0092	.0011	.0029
#2	-.0020	.0017	.0056	.0021	.0055	-.0090	.0030	.0034
#3	-.0014	.0014	.0056	-.0039	.0088	-.0077	.0003	.0060
Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.0236</b>	<b>161.7</b>	<b>.0118</b>	F <b>490.8</b>	<b>165.3</b>	*****	<b>1.785</b>	<b>.0044</b>
Stddev	.0029	.8	.0016	1.0	.5	----	.004	.0002
%RSD	12.30	.4756	13.52	.2075	.2746	----	.2138	3.767
#1	.0243	161.9	.0102	489.8	165.8	----	1.789	.0043
#2	.0204	162.4	.0117	491.8	165.0	----	1.783	.0046
#3	.0261	160.9	.0134	490.8	165.0	----	1.783	.0043
Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>1.471</b>	<b>-0.0016</b>	<b>3.026</b>	<b>.0000</b>	<b>.0015</b>	<b>-0.0012</b>	F <b>365.5</b>	<b>.0033</b>
Stddev	.003	.0004	.040	.0002	.0010	.0001	1.7	.0010
%RSD	.2096	25.99	1.320	94050.	66.61	6.116	.4606	30.71
#1	1.475	-.0021	3.071	.0001	.0020	-.0013	366.6	.0021
#2	1.469	-.0015	2.993	.0002	.0020	-.0013	363.6	.0040
#3	1.470	-.0013	3.015	-.0002	.0003	-.0012	366.4	.0037

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Sample Name: JC85326-6F Acquired: 4/2/2019 22:47:49 Type: Unk  
 Method: SGS No Valve3(v343) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: : :  
 Comment:

Elem	Li6707	P_1774		
Units	ppm	ppm		
Avg	<b>.0804</b>	<b>.0582</b>		
Stddev	.0004	.0025		
%RSD	.5292	4.319		
#1	.0804	.0611		
#2	.0809	.0566		
#3	.0800	.0570		
Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	115430.	23649.	3126.2	4979.8
Stddev	663.	27.	4.3	4.6
%RSD	.57417	.11563	.13912	.09320
#1	114670.	23657.	3121.4	4974.4
#2	115790.	23671.	3129.9	4982.5
#3	115840.	23618.	3127.3	4982.4

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Sample Name: JC85326-7F Acquired: 4/2/2019 22:53:19 Type: Unk  
 Method: SGS No Valve3(v343) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: : :  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.0255</b>	<b>.0000</b>	<b>.0000</b>	<b>.0001</b>	<b>.0003</b>	<b>.0023</b>	<b>.0611</b>	<b>.0018</b>
Stddev	.0002	.0000	.0005	.0002	.0003	.0001	.0005	.0006
%RSD	.7497	126.4	4684.	113.8	99.44	3.434	.7676	31.41
#1	.0254	.0001	.0003	.0003	-.0000	.0024	.0616	.0018
#2	.0257	-.0000	.0003	-.0000	.0003	.0024	.0609	.0012
#3	.0254	.0001	-.0005	.0002	.0005	.0022	.0608	.0023
Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-0.0117</b>	<b>.0020</b>	<b>.0075</b>	<b>-0.013</b>	<b>.0084</b>	F <b>-.0069</b>	<b>.0025</b>	<b>.0028</b>
Stddev	.0005	.0003	.0002	.0005	.0006	.0004	.0029	.0006
%RSD	26.56	15.31	2.239	40.69	7.645	5.772	115.7	21.17
#1	-.0012	.0019	.0074	-.0018	.0091	-.0070	.0057	.0023
#2	-.0021	.0023	.0077	-.0013	.0078	-.0072	.0020	.0028
#3	-.0018	.0017	.0076	-.0008	.0082	-.0064	-.0001	.0035
Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.0182</b>	<b>160.5</b>	<b>.0162</b>	F <b>484.4</b>	<b>164.4</b>	*****	<b>1.764</b>	<b>.0041</b>
Stddev	.0033	1.7	.0009	1.3	.7	----	.005	.0002
%RSD	17.96	1.040	5.249	2613	4.485	----	.2815	3.902
#1	.0219	160.3	.0153	483.4	163.6	----	1.769	.0043
#2	.0156	162.3	.0165	483.9	164.6	----	1.764	.0040
#3	.0171	159.0	.0169	485.8	165.1	----	1.759	.0040
Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>1.407</b>	<b>.0037</b>	<b>3.001</b>	<b>.0002</b>	<b>.0003</b>	<b>-.0013</b>	F <b>363.5</b>	<b>.0023</b>
Stddev	.004	.0005	.026	.0003	.0006	.0000	1.6	.0014
%RSD	.3169	13.84	8.758	165.3	193.9	3.175	.4386	60.98
#1	1.410	.0032	2.978	-.0002	-.0001	-.0013	365.2	.0023
#2	1.410	.0039	2.994	.0005	-.0000	-.0013	363.2	.0037
#3	1.402	.0042	3.029	.0003	.0010	-.0012	362.0	.0009

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Sample Name: JC85326-7F Acquired: 4/2/2019 22:53:19 Type: Unk  
 Method: SGS No Valve3(v343) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: : :  
 Comment:

Elem	Li6707	P_1774		
Units	ppm	ppm		
Avg	<b>.0789</b>	<b>.0550</b>		
Stddev	.0010	.0007		
%RSD	1.213	1.238		
#1	.0794	.0557		
#2	.0777	.0544		
#3	.0794	.0547		
Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	116280.	23799.	3159.8	5023.8
Stddev	482.	66.	8.0	10.8
%RSD	.41443	.27644	.25397	.21405
#1	115720.	23875.	3151.6	5015.5
#2	116560.	23766.	3159.9	5020.0
#3	116550.	23757.	3167.7	5036.0

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Sample Name: JC85326-8F Acquired: 4/2/2019 22:58:50 Type: Unk  
 Method: SGS No Valve3(v343) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: : :  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.0256</b>	<b>.0001</b>	<b>.0000</b>	<b>.0001</b>	<b>.0000</b>	<b>.0026</b>	<b>.0626</b>	<b>.0015</b>
Stddev	.0001	.0000	.0002	.0001	.0001	.0003	.0002	.0002
%RSD	.3299	67.59	447.7	129.4	301.7	11.80	.3973	12.76
#1	.0256	.0001	-.0002	-.0000	-.0001	.0025	.0624	.0017
#2	.0257	.0001	.0001	.0001	.0002	.0030	.0629	.0014
#3	.0255	.0000	.0001	.0002	.0001	.0024	.0625	.0014
Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-0.0019</b>	<b>.0015</b>	<b>.0062</b>	<b>-0.0005</b>	<b>.0072</b>	F <b>-.0063</b>	<b>.0011</b>	<b>.0039</b>
Stddev	.0005	.0001	.0001	.0014	.0018	.0013	.0008	.0005
%RSD	25.72	6.297	1.215	292.2	25.04	19.87	71.35	12.33
#1	-.0014	.0016	.0063	-.0005	.0091	-.0053	.0017	.0044
#2	-.0021	.0014	.0063	-.0009	.0067	-.0077	.0002	.0038
#3	-.0023	.0015	.0062	-.0019	.0056	-.0059	.0014	.0034
Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.0241</b>	<b>146.9</b>	<b>.0122</b>	F <b>438.2</b>	<b>149.8</b>	*****	<b>1.614</b>	<b>.0038</b>
Stddev	.0054	1.6	.0007	1.2	.5	----	.010	.0001
%RSD	22.64	1.073	5.540	2.841	3.194	----	.6204	2.346
#1	.0266	147.3	.0118	438.5	150.0	----	1.625	.0039
#2	.0278	148.2	.0118	439.2	150.0	----	1.608	.0037
#3	.0178	145.2	.0129	436.8	149.2	----	1.608	.0038
Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>1.480</b>	<b>-0.0019</b>	<b>2.723</b>	<b>.0001</b>	<b>-0.0002</b>	<b>-0.0013</b>	F <b>332.3</b>	<b>.0032</b>
Stddev	.010	.0015	.055	.0001	.0006	.0000	2.5	.0006
%RSD	.6636	79.06	2.001	100.3	257.8	1.721	.7545	17.28
#1	1.492	-.0036	2.695	.0002	-.0008	-.0013	335.0	.0029
#2	1.476	-.0013	2.786	-.0000	.0004	-.0013	331.8	.0038
#3	1.474	-.0008	2.688	.0001	-.0003	-.0013	330.0	.0028

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Sample Name: JC85326-8F Acquired: 4/2/2019 22:58:50 Type: Unk  
 Method: SGS No Vlave3(v343) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: : :  
 Comment:

Elem	Li6707	P_1774
Units	ppm	ppm
Avg	<b>.0717</b>	<b>.0483</b>
Stddev	.0010	.0006
%RSD	1.405	1.202
#1	.0727	.0476
#2	.0716	.0485
#3	.0707	.0488

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	116590.	23821.	3166.4	5049.3
Stddev	210.	109.	17.9	26.4
%RSD	.18042	.45606	.56536	.52339
#1	116710.	23810.	3145.7	5018.8
#2	116350.	23718.	3177.2	5065.4
#3	116710.	23934.	3176.2	5063.7

Sample Name: JC85326-9F Acquired: 4/2/2019 23:04:21 Type: Unk  
 Method: SGS No Vlave3(v343) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: : :  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.0256</b>	<b>.0000</b>	<b>.0002</b>	<b>-0.0000</b>	<b>.0004</b>	<b>.0025</b>	<b>.0622</b>	<b>.0016</b>
Stddev	.0001	.0000	.0002	.0002	.0001	.0004	.0011	.0006
%RSD	.3635	420.1	111.4	892.7	12.42	14.82	1.805	36.38
#1	.0257	.0000	-0.0000	-0.0001	.0005	.0025	.0632	.0012
#2	.0255	.0001	.0003	.0002	.0004	.0022	.0610	.0014
#3	.0255	-0.0000	.0002	-0.0002	.0004	.0029	.0624	.0022

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-0.0017</b>	<b>.0016</b>	<b>.0053</b>	<b>-0.0028</b>	<b>.0075</b>	<b>F -.0079</b>	<b>.0011</b>	<b>.0032</b>
Stddev	.0004	.0003	.0001	.0016	.0005	.0012	.0021	.0005
%RSD	24.94	16.92	1.690	56.61	7.277	15.51	187.2	16.45
#1	-0.0021	.0018	.0052	-0.0045	.0079	-.0066	.0035	.0035
#2	-0.0014	.0017	.0054	-0.0028	.0076	-.0091	.0000	.0026
#3	-0.0014	.0013	.0053	-0.0013	.0069	-.0079	-0.0002	.0035

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.0153</b>	<b>152.8</b>	<b>.0105</b>	<b>F 459.1</b>	<b>157.9</b>	<b>*****</b>	<b>1.664</b>	<b>.0040</b>
Stddev	.0085	.5	.0023	.8	.6	----	.015	.0000
%RSD	55.73	.3457	22.25	.1774	.4016	----	.8822	1.221
#1	.0065	152.3	.0119	459.4	158.5	----	1.673	.0040
#2	.0236	152.9	.0117	458.2	158.1	----	1.672	.0040
#3	.0158	153.3	.0078	459.7	157.2	----	1.647	.0041

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>1.445</b>	<b>-0.0014</b>	<b>2.874</b>	<b>-0.0000</b>	<b>.0011</b>	<b>-0.0008</b>	<b>F 341.8</b>	<b>.0044</b>
Stddev	.009	.0005	.036	.0001	.0004	.0001	1.9	.0005
%RSD	.5941	36.85	1.262	478.6	38.73	7.607	.5532	11.25
#1	1.446	-0.0020	2.901	.0000	.0011	-.0008	342.8	.0050
#2	1.453	-0.0010	2.833	.0000	.0007	-.0008	343.0	.0043
#3	1.436	-0.0013	2.888	-0.0001	.0015	-.0009	339.6	.0040

7.2  
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Sample Name: JC85326-9F Acquired: 4/2/2019 23:04:21 Type: Unk  
 Method: SGS No Vlave3(v343) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: : :  
 Comment:

Elem	Li6707	P_1774
Units	ppm	ppm
Avg	<b>.0754</b>	<b>.0510</b>
Stddev	.0009	.0008
%RSD	1.251	1.628
#1	.0748	.0513
#2	.0765	.0500
#3	.0749	.0516

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	117480.	23397.	3197.3	5086.2
Stddev	1740.	74.	23.2	32.8
%RSD	1.4808	.31776	.72657	.64519
#1	115860.	23314.	3184.6	5068.8
#2	119320.	23457.	3183.2	5065.7
#3	117280.	23421.	3224.1	5124.0

Sample Name: JC85326-11F Acquired: 4/2/2019 23:09:52 Type: Unk  
 Method: SGS No Vlave3(v343) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: : :  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.0015</b>	<b>.0000</b>	<b>.0000</b>	<b>-0.0001</b>	<b>.0002</b>	<b>-0.0001</b>	<b>.0002</b>	<b>.0001</b>	<b>-0.0013</b>
Stddev	.0001	.0000	.0001	.0000	.0001	.0002	.0000	.0001	.0004
%RSD	4.968	164.1	1151.	54.12	55.47	214.7	6.933	95.22	29.42
#1	.0014	-0.0000	.0000	-0.0001	.0002	-0.0004	.0002	-0.0000	-0.0011
#2	.0015	.0000	-0.0001	-0.0000	.0001	.0001	.0002	.0002	-0.0011
#3	.0016	.0000	.0001	-0.0001	.0002	-0.0000	.0002	.0002	-0.0018

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.0000</b>	<b>.0009</b>	<b>-0.0003</b>	<b>-0.0012</b>	<b>.0001</b>	<b>.0005</b>	<b>.0010</b>	<b>.0250</b>	<b>.0141</b>
Stddev	.0001	.0001	.0002	.0007	.0004	.0003	.0008	.0058	.0018
%RSD	551.4	16.27	96.10	57.40	280.0	56.97	78.41	23.20	12.64
#1	.0001	.0009	-0.0003	-0.0005	.0006	.0006	.0003	.0253	.0161
#2	.0000	.0010	-0.0005	-0.0011	.0000	.0006	.0018	.0190	.0133
#3	-0.0001	.0007	-0.0000	-0.0019	-0.0002	.0002	.0008	.0306	.0128

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-0.0009</b>	<b>.0043</b>	<b>1.134</b>	<b>1.071</b>	<b>.0033</b>	<b>.0001</b>	<b>.1056</b>	<b>.0013</b>	<b>.0010</b>
Stddev	.0019	.0058	.0225	.068	.0002	.0001	.0010	.0008	.0000
%RSD	210.8	134.2	19.82	6.370	6.690	122.3	.9150	59.52	1.424
#1	.0004	.0110	.1328	1.146	.0033	-0.0000	.1067	.0007	.0010
#2	-0.0001	.0008	.1186	1.054	.0034	.0002	.1049	.0022	.0010
#3	-0.0030	.0011	.0888	1.013	.0030	.0002	.1052	.0011	.0010

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.0001</b>	<b>.0004</b>	<b>.0002</b>	<b>.0096</b>	<b>.0007</b>	<b>-0.0006</b>	<b>.0052</b>
Stddev	.0003	.0006	.0000	.0021	.0010	.0008	.0006
%RSD	311.0	148.8	24.45	21.74	135.5	122.3	11.94
#1	.0003	.0010	.0001	.0074	.0018	-0.0007	.0046
#2	.0002	.0003	.0002	.0096	-0.0002	-0.0013	.0051
#3	-0.0002	-0.0001	.0002	.0116	.0006	.0002	.0059

Sample Name: JC85326-11F Acquired: 4/2/2019 23:09:52 Type: Unk  
 Method: SGS No Valve3(v343) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: : :  
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	155460.	25919.	4065.6	7463.8
Stddev	640.	247.	4.5	14.1
%RSD	.41192	.95336	.11155	.18901
#1	154900.	25978.	4068.6	7474.6
#2	155310.	26132.	4067.7	7469.1
#3	156160.	25648.	4060.3	7447.9

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Sample Name: MP13758-MB1 Acquired: 4/2/2019 23:15:05 Type: Unk  
 Method: SGS No Valve3(v343) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: : :  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0003	-0.001	-0.001	.0001	-0.001	-0.001	.0000	.0000	-0.013
Stddev	.0001	.0000	.0001	.0001	.0001	.0002	.0000	.0003	.0001
%RSD	34.68	55.53	134.5	156.6	108.0	145.2	38.77	916.6	9.783
#1	.0003	-0.001	-0.002	.0002	-0.002	.0001	.0001	.0001	-0.013
#2	.0004	-0.000	-0.002	-0.001	-0.001	-0.002	.0000	.0003	-0.012
#3	.0002	-0.001	.0001	.0001	.0000	-0.003	.0000	-0.003	-0.015
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.001	.0017	-0.012	-0.002	.0004	-0.011	.0015	-0.033	.0051
Stddev	.0001	.0000	.0016	.0010	.0013	.0013	.0018	.0015	.0016
%RSD	149.9	2.720	133.8	512.5	305.0	115.5	120.6	45.97	31.01
#1	-0.001	.0016	-0.024	-0.013	.0001	-0.001	-0.004	-0.022	.0063
#2	-0.002	.0017	-0.018	-0.000	-0.007	-0.025	.0032	-0.051	.0033
#3	.0000	.0017	.0006	.0007	.0019	-0.007	.0017	-0.027	.0057
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.003	.0158	.0647	.5846	.0008	.0000	.0060	-0.010	-0.000
Stddev	.0014	.0097	.0094	.0133	.0009	.0001	.0004	.0002	.0001
%RSD	504.3	61.05	14.55	2.268	105.9	204.6	7.255	16.53	208.0
#1	-0.014	.0270	.0572	.5999	.0012	-0.000	.0063	-0.010	-0.001
#2	.0012	.0099	.0618	.5776	-0.002	-0.000	.0055	-0.012	.0000
#3	-0.006	.0107	.0753	.5763	.0015	.0001	.0060	-0.009	.0000
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	.0001	-0.001	.0000	.0038	-0.008	-0.001	.0040		
Stddev	.0000	.0002	.0001	.0009	.0011	.0010	.0009		
%RSD	32.26	129.9	549.0	23.09	143.0	1164.	23.50		
#1	.0000	.0000	-0.000	.0031	-0.016	.0011	.0050		
#2	.0001	-0.003	.0001	.0048	.0005	-0.009	.0032		
#3	.0001	-0.001	-0.000	.0035	-0.011	-0.004	.0038		

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7.2  
7

Sample Name: MP13758-MB1 Acquired: 4/2/2019 23:15:05 Type: Unk  
 Method: SGS No Valve3(v343) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: : :  
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	152720.	25409.	4003.7	7351.8
Stddev	692.	171.	13.9	15.9
%RSD	.45284	.67107	.34801	.21615
#1	151940.	25286.	3994.9	7340.2
#2	152930.	25336.	3996.4	7345.2
#3	153270.	25603.	4019.8	7369.9

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Sample Name: MP13758-B1 Acquired: 4/2/2019 23:20:19 Type: Unk  
 Method: SGS No Valve3(v343) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: : :  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.015	1.883	1.924	1.902	1.941	1.858	1.965	1.961
Stddev	.009	.009	.002	.001	.002	.002	.001	.001
%RSD	4.286	.4986	.0870	.0441	.0779	.0998	.0230	.0688
#1	2.023	1.891	1.926	1.901	1.942	1.860	1.965	1.962
#2	2.015	1.885	1.923	1.903	1.942	1.858	1.965	1.960
#3	2.006	1.873	1.923	1.902	1.939	1.856	1.964	1.963
Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2377	1.920	1.928	1.885	1.994	1.901	1.860	1.984
Stddev	.0006	.001	.002	.006	.006	.002	.002	.003
%RSD	.2449	.0324	.1250	.3220	.2830	.1075	.0841	.1423
#1	2383	1.920	1.926	1.891	2.001	1.901	1.859	1.980
#2	2376	1.920	1.931	1.884	1.990	1.902	1.862	1.985
#3	2372	1.919	1.928	1.879	1.992	1.898	1.860	1.986
Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.70	23.86	22.73	22.95	25.09	25.29	1.934	1.972
Stddev	.15	.16	.10	.19	.15	.09	.001	.002
%RSD	.6221	.6798	.4382	.8206	.6151	.3645	.0553	.0822
#1	24.85	24.01	22.83	23.13	25.22	25.38	1.934	1.973
#2	24.69	23.89	22.74	22.98	25.13	25.30	1.933	1.974
#3	24.55	23.69	22.63	22.75	24.92	25.19	1.935	1.970
Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.047	1.967	1.979	1.985	1.909	1.914	F -0.053	0.350
Stddev	.0019	.005	.007	.002	.003	.001	.0040	.0006
%RSD	41.84	.2445	.3704	.1187	.1590	.0532	7.222	1.794
#1	-0.069	1.973	1.986	1.987	1.906	1.914	-0.0587	.0357
#2	-0.040	1.965	1.979	1.985	1.909	1.914	-0.0509	.0347
#3	-0.032	1.963	1.972	1.983	1.912	1.913	-0.0563	.0346

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Zoom In

Sample Name: MP13758-B1 Acquired: 4/2/2019 23:20:19 Type: Unk Method: SGS No Vlave3(v343) Mode: CONC Corr. Factor: 1.000000 User: admin Custom ID1: Comment:

Table with 3 columns: Elem, Units, Value. Rows include Li6707, P\_1774, Avg (1.853), Stddev (0.007), %RSD (0.3548), and Int. Std. Y\_3600, Y\_3710, Y\_2243, ln2306.

Table with 4 columns: #1, #2, #3, Value. Rows show replicate values for #1, #2, #3 across various elements.

Table with 4 columns: #1, #2, #3, Value. Rows show replicate values for #1, #2, #3 across various elements.

Zoom In

Sample Name: CCV Acquired: 4/2/2019 23:25:12 Type: QC Method: SGS No Vlave3(v343) Mode: CONC Corr. Factor: 1.000000 User: admin Custom ID1: Comment:

Table with 11 columns: Elem, Units, Value. Rows include Ba4554, Be3130, Cd2288, Co2286, Cr2677, Cu3247, Mn2576, Ni2316, Ag3280.

Table with 11 columns: #1, #2, #3, Value. Rows show replicate values for #1, #2, #3 across various elements.

Table with 11 columns: #1, #2, #3, Value. Rows show replicate values for #1, #2, #3 across various elements.

Table with 11 columns: #1, #2, #3, Value. Rows show replicate values for #1, #2, #3 across various elements.

Table with 11 columns: #1, #2, #3, Value. Rows show replicate values for #1, #2, #3 across various elements.

Table with 11 columns: #1, #2, #3, Value. Rows show replicate values for #1, #2, #3 across various elements.

Zoom In

Sample Name: CCV Acquired: 4/2/2019 23:25:12 Type: QC Method: SGS No Vlave3(v343) Mode: CONC Corr. Factor: 1.000000 User: admin Custom ID1: Comment:

Table with 8 columns: Elem, Units, Value. Rows include Ti3349, W\_2079, Zr3391, S\_1820, Bi2230, Li6707, P\_1774.

Table with 8 columns: #1, #2, #3, Value. Rows show replicate values for #1, #2, #3 across various elements.

Table with 4 columns: #1, #2, #3, Value. Rows show replicate values for #1, #2, #3 across various elements.

Table with 4 columns: #1, #2, #3, Value. Rows show replicate values for #1, #2, #3 across various elements.

Table with 4 columns: #1, #2, #3, Value. Rows show replicate values for #1, #2, #3 across various elements.

Table with 4 columns: #1, #2, #3, Value. Rows show replicate values for #1, #2, #3 across various elements.

Zoom In

Sample Name: CCB Acquired: 4/2/2019 23:30:03 Type: QC Method: SGS No Vlave3(v343) Mode: CONC Corr. Factor: 1.000000 User: admin Custom ID1: Comment:

Table with 11 columns: Elem, Units, Value. Rows include Ba4554, Be3130, Cd2288, Co2286, Cr2677, Cu3247, Mn2576, Ni2316, Ag3280.

Table with 11 columns: #1, #2, #3, Value. Rows show replicate values for #1, #2, #3 across various elements.

Table with 11 columns: #1, #2, #3, Value. Rows show replicate values for #1, #2, #3 across various elements.

Table with 11 columns: #1, #2, #3, Value. Rows show replicate values for #1, #2, #3 across various elements.

Table with 11 columns: #1, #2, #3, Value. Rows show replicate values for #1, #2, #3 across various elements.

Table with 11 columns: #1, #2, #3, Value. Rows show replicate values for #1, #2, #3 across various elements.

Sample Name: CCB Acquired: 4/2/2019 23:30:03 Type: QC  
 Method: SGS No Vlave3(v343) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: :  
 Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000	.0020	.0002	-0.0007	-0.0000	.0005	.0035
Stddev	.0001	.0006	.0000	.0011	.0004	.0008	.0012
%RSD	378.0	28.29	17.31	156.4	876.7	178.5	35.75

#1	.0002	.0024	.0002	-0.0020	-0.0002	.0001	.0032
#2	.0001	.0013	.0002	-0.0003	-0.0003	.0014	.0049
#3	-0.0001	.0022	.0001	.0001	.0004	-0.0002	.0024

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
 High Limit  
 Low Limit

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	153670.	25517.	3996.0	7322.5
Stddev	605.	54.	104.1	184.8
%RSD	.39369	.21004	2.6060	2.5235

#1	154300.	25490.	4052.7	7430.1
#2	153090.	25482.	4059.4	7428.2
#3	153630.	25579.	3875.8	7109.1

Sample Name: MP13758-S1 Acquired: 4/2/2019 23:35:19 Type: Unk  
 Method: SGS No Vlave3(v343) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: :  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.215	1.917	1.960	1.920	1.940	1.901	3.067	1.979	2.427
Stddev	.003	.002	.000	.002	.008	.002	.008	.001	.0017
%RSD	.1191	.0887	.0227	.1182	.4183	.0817	.2513	.0290	.6995

#1	2.215	1.919	1.960	1.922	1.950	1.900	3.064	1.979	2.445
#2	2.218	1.917	1.960	1.921	1.937	1.902	3.075	1.980	2.425
#3	2.212	1.916	1.960	1.918	1.935	1.900	3.061	1.979	2.411

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.941	1.897	1.916	1.990	1.910	1.887	2.020	25.09	127.5
Stddev	.005	.006	.007	.003	.004	.002	.003	.06	.3
%RSD	.2414	.3348	.3791	.1700	.2126	.1084	.1349	.2297	.2627

#1	1.945	1.901	1.923	1.993	1.911	1.888	2.019	25.09	127.4
#2	1.942	1.899	1.918	1.990	1.914	1.885	2.023	25.15	127.1
#3	1.936	1.890	1.908	1.987	1.906	1.889	2.018	25.03	127.8

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	23.29	67.62	34.06	39.62	2.105	1.965	11.91	1.938	2.625
Stddev	.02	.08	.11	.08	.005	.002	.00	.004	.021
%RSD	.0651	.1189	.3161	.2134	.2459	.1092	.0068	.2188	.8113

#1	23.29	67.60	34.18	39.71	2.102	1.967	11.91	1.942	2.640
#2	23.27	67.55	34.03	39.60	2.111	1.967	11.91	1.939	2.601
#3	23.30	67.71	33.97	39.54	2.103	1.963	11.91	1.933	2.635

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.008	1.947	1.931	6.955	.0358	.0286	1.915
Stddev	.005	.002	.004	.023	.0005	.0008	.006
%RSD	.2535	.1003	.2227	.3323	1.272	2.786	.2972

#1	2.014	1.948	1.934	6.979	.0360	.0278	1.921
#2	2.006	1.948	1.933	6.955	.0353	.0294	1.915
#3	2.004	1.945	1.926	6.933	.0361	.0285	1.909

Sample Name: MP13758-S1 Acquired: 4/2/2019 23:35:19 Type: Unk  
 Method: SGS No Vlave3(v343) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: :  
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	144810.	25078.	3844.1	6544.9
Stddev	295.	25.	2.6	7.2
%RSD	.20348	.10148	.06817	.10989

#1	144540.	25063.	3844.3	6549.5
#2	144760.	25107.	3841.4	6536.6
#3	145120.	25063.	3846.6	6548.7

Sample Name: MP13758-S2 Acquired: 4/2/2019 23:40:34 Type: Unk  
 Method: SGS No Vlave3(v343) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: :  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.196	1.906	1.946	1.912	1.935	1.881	3.010	1.972	2.498
Stddev	.003	.006	.009	.007	.003	.011	.013	.007	.0009
%RSD	.1374	.3229	.4724	.3644	.1657	.6058	.4368	.3416	.3712

#1	2.199	1.913	1.955	1.917	1.937	1.890	3.021	1.978	2.500
#2	2.194	1.903	1.946	1.915	1.937	1.886	3.013	1.973	2.506
#3	2.194	1.902	1.937	1.904	1.932	1.868	2.996	1.965	2.488

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.930	1.888	1.873	1.973	1.991	1.871	1.976	24.71	123.8
Stddev	.008	.007	.006	.006	.010	.010	.007	.06	1.5
%RSD	.4156	.3633	.3156	.3101	.4917	.5130	.3629	.2397	1.251

#1	1.934	1.892	1.877	1.980	1.999	1.879	1.982	24.78	125.5
#2	1.935	1.892	1.876	1.968	1.993	1.874	1.977	24.66	123.4
#3	1.921	1.880	1.866	1.970	1.980	1.860	1.968	24.69	122.4

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	21.80	63.30	35.02	40.31	2.088	1.925	11.37	1.898	2.592
Stddev	.11	.42	.11	.09	.011	.008	.06	.005	.063
%RSD	.5075	.6654	.3087	.2305	.5091	.4089	.5512	.2618	2.425

#1	21.93	63.79	35.13	40.42	2.100	1.933	11.44	1.901	2.650
#2	21.78	63.06	35.00	40.26	2.084	1.925	11.37	1.901	2.601
#3	21.71	63.05	34.92	40.26	2.081	1.917	11.31	1.892	2.525

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.975	1.911	1.892	6.625	.0334	.0278	1.891
Stddev	.005	.007	.009	.007	.0016	.0002	.002
%RSD	.2605	.3790	.4658	.0997	4.943	.8815	.0880

#1	1.978	1.918	1.897	6.624	.0316	.0281	1.892
#2	1.978	1.912	1.898	6.620	.0348	.0277	1.889
#3	1.969	1.904	1.882	6.633	.0338	.0276	1.891

7.2  
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Sample Name: MP13758-S2 Acquired: 4/2/2019 23:40:34 Type: Unk  
Method: SGS No Valve3(v343) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: :  
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	146830.	25298.	3898.4	6628.0
Stddev	391.	197.	6.1	4.1
%RSD	.26597	.77983	.15706	.06115
#1	146740.	25070.	3892.5	6623.5
#2	146500.	25418.	3898.0	6629.2
#3	147260.	25405.	3904.8	6631.4

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Sample Name: JC85367-1F Acquired: 4/2/2019 23:45:49 Type: Unk  
Method: SGS No Valve3(v343) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: :  
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1587	.0000	.0001	-0.001	.0004	.0001	1.187	.0005	-0.017
Stddev	.0003	.0000	.0001	.0003	.0002	.0001	.001	.0002	.0002
%RSD	.2026	11420.	127.7	321.6	50.57	100.5	.1134	30.90	12.13
#1	.1587	-0.0000	.0001	-0.000	.0002	.0001	1.185	.0005	-0.014
#2	.1590	.0000	.0001	-0.004	.0006	-0.000	1.187	.0007	-0.017
#3	.1584	.0000	-0.000	.0001	.0004	.0003	1.188	.0004	-0.018
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0020	.0011	-0.0004	.0005	-0.012	.0005	.0018	.0114	106.2
Stddev	.0001	.0002	.0014	.0005	.0008	.0015	.0011	.0056	.1
%RSD	6.493	13.54	379.0	99.19	65.11	283.4	64.23	49.25	0.879
#1	.0020	.0010	.0000	.0011	-0.017	.0003	.0019	.0050	106.3
#2	.0022	.0013	-0.020	.0002	-0.003	.0021	.0029	.0156	106.2
#3	.0019	.0011	.0008	.0003	-0.016	-0.008	.0006	.0135	106.1
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6212	43.21	8.695	14.34	.1481	.0004	12.14	-0.006	.6370
Stddev	.0011	.05	.028	.02	.0006	.0002	.04	.0005	.0009
%RSD	.1713	.1112	.3171	.1204	4.287	42.94	.3109	86.98	.1338
#1	.6213	43.26	8.704	14.32	.1480	.0005	12.18	-0.008	.6361
#2	.6221	43.21	8.664	14.34	.1475	.0002	12.11	-0.000	.6378
#3	.6200	43.17	8.716	14.35	.1487	.0004	12.12	-0.010	.6371
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	-0.0003	.0021	-0.0063	7.112	.0004	.0283	.0088		
Stddev	.0001	.0004	.0001	.035	.0006	.0001	.0009		
%RSD	22.09	18.05	1.470	4.927	152.3	5.272	9.869		
#1	-0.0002	.0026	-0.0063	7.149	.0011	.0285	.0090		
#2	-0.0004	.0018	-0.0062	7.079	-0.000	.0282	.0079		
#3	-0.0003	.0020	-0.0063	7.107	.0001	.0282	.0096		

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7.2  
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Sample Name: JC85367-1F Acquired: 4/2/2019 23:45:49 Type: Unk  
Method: SGS No Valve3(v343) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: :  
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	147850.	25482.	3895.8	6792.4
Stddev	308.	55.	5.9	14.0
%RSD	.20826	.21541	.15206	.20599
#1	147870.	25425.	3890.3	6783.8
#2	147530.	25534.	3902.1	6808.6
#3	148150.	25487.	3895.2	6784.9

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Sample Name: MP13758-SD1 Acquired: 4/2/2019 23:50:58 Type: Unk  
Method: SGS No Valve3(v343) Mode: CONC Corr. Factor: 5.000000  
User: admin Custom ID1: :  
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1640	-0.0002	-0.0003	-0.0001	.0005	.0034	1.233	.0000	-0.0078
Stddev	.0006	.0001	.0010	.0004	.0009	.0006	.002	.0005	.0012
%RSD	.3489	70.18	323.4	763.9	184.1	18.29	.1376	2150.	15.40
#1	.1645	-0.0001	.0008	-0.004	.0008	.0038	1.231	-0.004	-0.0064
#2	.1634	-0.0001	-0.0009	-0.004	-0.005	.0027	1.233	.0006	-0.0085
#3	.1639	-0.0003	-0.0008	-0.001	.0012	.0037	1.235	-0.001	-0.0084
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0023	.0033	-0.0026	-0.0023	-0.0004	-0.0010	.0060	-0.0132	109.4
Stddev	.0007	.0003	.0031	.0012	.0030	.0062	.0033	.0217	.1
%RSD	29.38	8.360	115.4	50.80	849.5	590.4	55.38	163.9	0.970
#1	.0017	.0034	-0.0049	-0.0036	-0.0015	.0003	.0087	-0.0361	109.4
#2	.0022	.0030	-0.0039	-0.0019	-0.0027	.0044	.0071	-0.0104	109.4
#3	.0030	.0035	.0008	-0.0014	.0031	-0.0078	.0023	.0069	109.6
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7017	44.70	8.860	15.18	15.28	.0007	12.22	-0.010	.6491
Stddev	.0026	.15	.159	.04	.0043	.0015	.15	.0038	.0010
%RSD	.3711	.3440	1.795	.2937	2.818	228.3	1.220	382.5	.1510
#1	.7010	44.80	8.783	15.22	.1578	-0.011	12.38	.0025	.6501
#2	.6996	44.52	9.043	15.13	.1502	.0013	12.21	-0.0051	.6482
#3	.7046	44.77	8.756	15.18	.1505	.0017	12.08	-0.0003	.6490
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	.0009	.0066	-0.0057	7.038	-0.0001	.0256	.0243		
Stddev	.0008	.0022	.0002	.083	.0025	.0025	.0056		
%RSD	90.92	33.26	3.113	1.180	2207.	9.778	22.92		
#1	.0007	.0063	-0.0059	7.122	.0003	.0284	.0225		
#2	.0002	.0088	-0.0055	7.038	.0021	.0236	.0198		
#3	.0017	.0045	-0.0057	6.956	-0.028	.0248	.0305		

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Sample Name: MP13758-SD1 Acquired: 4/2/2019 23:50:58 Type: Unk  
 Method: SGS No Valve3(v343) Mode: CONC Corr. Factor: 5.000000  
 User: admin Custom ID1: : :  
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	150210.	25232.	3993.4	7186.3
Stddev	362.	17.	29.0	47.2
%RSD	.24080	.06917	.72503	.65706
#1	150000.	25212.	3966.0	7139.1
#2	150630.	25243.	3990.5	7186.2
#3	149990.	25240.	4023.7	7233.5

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Sample Name: JC85367-2F Acquired: 4/2/2019 23:56:10 Type: Unk  
 Method: SGS No Valve3(v343) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: : :  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3650	-0.0000	.0001	.0008	.0001	.0006	.1823	.0855	-0.014
Stddev	.0007	.0000	.0002	.0001	.0001	.0002	.0007	.0014	.0001
%RSD	.1842	99.60	304.1	10.17	108.6	32.89	.3645	1.617	9.292
#1	.3649	-0.0000	.0002	.0007	-0.0000	.0007	.1828	.0870	-0.014
#2	.3657	-0.0001	-0.0000	.0008	.0001	.0006	.1816	.0853	-0.013
#3	.3644	-0.0000	-0.0001	.0009	.0003	.0004	.1825	.0842	-0.015
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0004	.0272	.0016	-0.0000	.0029	-0.0003	.0031	.0087	76.67
Stddev	.0003	.0006	.0009	.0019	.0010	.0004	.0012	.0048	.33
%RSD	58.26	2.038	56.00	11970.	33.46	148.7	37.65	54.65	4.244
#1	.0003	.0278	.0009	.0014	.0032	-0.0007	.0037	.0117	77.02
#2	.0003	.0270	.0013	-0.0021	.0036	.0001	.0038	.0032	76.38
#3	.0007	.0268	.0026	.0007	.0018	-0.0002	.0018	.0112	76.63
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0996	9.713	2.881	3.786	.0353	.0013	7.537	-0.008	.3871
Stddev	.0020	.058	.023	.006	.0005	.0002	.133	.0006	.0005
%RSD	2.034	.5961	.8006	.1651	1.289	19.08	1.762	76.34	.1372
#1	.1017	9.759	2.901	3.779	.0355	.0015	7.689	-0.003	.3866
#2	.0977	9.648	2.887	3.791	.0348	.0010	7.475	-0.016	.3877
#3	.0996	9.732	2.856	3.788	.0356	.0014	7.446	-0.007	.3871
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	-0.0000	.0033	-0.0038	2.367	-0.0008	.0061	.0090		
Stddev	.0003	.0010	.0001	.040	.0004	.0004	.0015		
%RSD	656.0	30.96	3.685	1.684	49.00	6.004	16.98		
#1	-0.0001	.0039	-0.0039	2.413	-0.0006	.0058	.0093		
#2	-0.0003	.0039	-0.0038	2.348	-0.0012	.0065	.0074		
#3	.0003	.0021	-0.0036	2.341	-0.0006	.0059	.0104		

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7.2  
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Sample Name: JC85367-2F Acquired: 4/2/2019 23:56:10 Type: Unk  
 Method: SGS No Valve3(v343) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: : :  
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	149700.	25328.	3856.3	6856.4
Stddev	238.	223.	64.9	103.1
%RSD	.15894	.87851	1.6827	1.5041
#1	149580.	25102.	3783.0	6741.4
#2	149980.	25547.	3879.4	6887.3
#3	149550.	25335.	3906.5	6940.5

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Sample Name: JC85367-3F Acquired: 4/3/2019 0:01:19 Type: Unk  
 Method: SGS No Valve3(v343) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: : :  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3600	.0000	.0000	.0010	-0.0001	.0005	.1855	.0809	-0.017
Stddev	.0008	.0000	.0001	.0002	.0001	.0003	.0005	.0007	.0001
%RSD	.2177	838.9	414.6	16.87	73.38	51.03	.2434	.8085	6.644
#1	.3591	.0001	-0.0001	.0008	-0.0002	.0008	.1854	.0808	-0.019
#2	.3605	-0.0000	.0000	.0012	-0.0001	.0002	.1851	.0817	-0.017
#3	.3605	-0.0000	.0002	.0011	-0.0000	.0006	.1860	.0804	-0.017
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0005	.0282	.0014	-0.0002	.0019	-0.0022	.0015	.0094	76.20
Stddev	.0000	.0001	.0007	.0006	.0004	.0016	.0010	.0062	.47
%RSD	8.267	.5017	50.35	386.6	23.42	71.46	62.91	66.56	.6143
#1	.0005	.0283	.0011	.0005	.0022	-0.0035	.0011	.0101	75.76
#2	.0005	.0283	.0009	-0.0008	.0014	-0.0005	.0026	.0028	76.14
#3	.0004	.0281	.0021	-0.0002	.0022	-0.0026	.0008	.0153	76.69
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0990	9.834	2.892	3.799	.0341	.0011	7.380	-0.000	.3851
Stddev	.0015	.101	.028	.019	.0006	.0000	.007	.0008	.0011
%RSD	1.553	1.029	.9632	.5006	1.749	4.584	.1008	4074.	.2982
#1	.0973	9.719	2.877	3.784	.0342	.0010	7.382	-0.009	.3839
#2	.0995	9.869	2.875	3.793	.0346	.0011	7.386	.0001	.3852
#3	.1002	9.912	2.924	3.821	.0335	.0011	7.372	.0008	.3861
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	-0.0002	.0013	-0.0038	2.276	-0.0011	.0063	.0110		
Stddev	.0001	.0009	.0001	.013	.0007	.0008	.0005		
%RSD	31.45	66.55	2.568	.5623	63.40	13.45	4.661		
#1	-0.0002	.0010	-0.0039	2.287	-0.0012	.0053	.0115		
#2	-0.0003	.0007	-0.0037	2.277	-0.0003	.0067	.0112		
#3	-0.0002	.0023	-0.0038	2.262	-0.0017	.0068	.0105		

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Sample Name: JC85367-3F Acquired: 4/3/2019 0:01:19 Type: Unk  
 Method: SGS No Valve3(v343) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: : :  
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	149230.	25325.	3927.0	6969.2
Stddev	360.	236.	7.7	17.6
%RSD	.24136	.92995	.19502	.25255
#1	149430.	25526.	3923.9	6961.9
#2	149440.	25383.	3921.3	6956.4
#3	148810.	25066.	3935.7	6989.3

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Sample Name: JC85367-4F Acquired: 4/3/2019 0:06:29 Type: Unk  
 Method: SGS No Valve3(v343) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: : :  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0346	.0000	-0.005	.0028	.0003	.0029	3.354	.0005	-0.015
Stddev	.0005	.0000	.0002	.0002	.0003	.0004	.189	.0004	.0001
%RSD	1.328	27.75	40.04	8.595	98.81	15.36	5.630	77.99	4.674
#1	.0341	.0000	-0.004	.0026	.0005	.0026	3.250	.0003	-0.016
#2	.0348	.0000	-0.004	.0031	.0006	.0027	3.240	.0009	-0.015
#3	.0350	.0000	-0.007	.0027	.0000	.0034	3.572	.0002	-0.015
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0045	.0040	.0058	.0004	.0008	-0.0028	-0.0007	.0078	46.74
Stddev	.0009	.0017	.0010	.0013	.0008	.0009	.0019	.0030	.45
%RSD	20.71	41.05	17.81	293.9	97.14	31.90	255.7	37.76	9627
#1	.0043	.0059	.0047	-0.009	.0016	-0.033	-0.024	.0105	46.23
#2	.0037	.0033	.0066	.0016	.0002	-0.017	.0013	.0047	46.91
#3	.0055	.0029	.0062	.0006	.0006	-0.032	-0.011	.0084	47.09
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	27.05	24.88	2.731	56.09	.0707	.0009	5.473	-0.004	2046
Stddev	.35	.25	.025	.66	.0009	.0001	.035	.0005	.0026
%RSD	1.309	1.013	.9086	1.173	1.332	14.82	.6443	115.9	1.280
#1	26.64	24.59	2.703	55.34	.0718	.0008	5.485	-0.010	2016
#2	27.29	25.01	2.746	56.55	.0703	.0010	5.501	-0.001	2065
#3	27.22	25.03	2.746	56.40	.0701	.0008	5.433	-0.002	2056
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	.0001	.0009	-0.0032	49.09	-0.0025	.0008	.0014		
Stddev	.0002	.0007	.0002	.26	.0008	.0001	.0009		
%RSD	167.5	77.93	7.117	5230	33.32	18.57	64.98		
#1	-0.000	.0001	-0.031	49.31	-0.018	.0009	.0022		
#2	.0000	.0012	-0.031	49.15	-0.034	.0006	.0004		
#3	.0003	.0015	-0.035	48.81	-0.023	.0008	.0016		

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Sample Name: JC85367-4F Acquired: 4/3/2019 0:06:29 Type: Unk  
 Method: SGS No Valve3(v343) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: : :  
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	141740.	25054.	3842.4	6804.6
Stddev	7465.	232.	26.2	53.5
%RSD	5.2668	.92744	.68170	.78631
#1	145570.	25311.	3821.5	6758.9
#2	146500.	24991.	3833.8	6791.5
#3	133130.	24859.	3871.8	6863.4

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Sample Name: JC85391-1 Acquired: 4/3/2019 0:11:48 Type: Unk  
 Method: SGS No Valve3(v343) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: : :  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0183	-0.000	-0.000	.0001	.0005	.0005	.0248	.0007	-0.017
Stddev	.0002	.0000	.0001	.0001	.0001	.0004	.0001	.0002	.0004
%RSD	8965	28.07	299.0	95.58	15.48	67.75	.2950	35.74	24.91
#1	.0183	-0.000	-0.000	.0000	.0005	.0002	.0248	.0009	-0.020
#2	.0184	-0.000	.0001	.0001	.0005	.0009	.0247	.0006	-0.019
#3	.0181	-0.001	-0.001	.0002	.0006	.0005	.0248	.0005	-0.012
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0003	.0025	-0.003	-0.006	.0006	-0.0012	.0011	.1279	11.60
Stddev	.0004	.0001	.0009	.0013	.0007	.0009	.0009	.0037	.02
%RSD	116.0	2.116	290.8	204.7	105.7	77.97	84.09	2.865	.1984
#1	.0004	.0026	-0.014	-0.002	.0013	-0.008	.0004	.1264	11.63
#2	.0006	.0025	.0005	-0.004	.0005	-0.005	.0022	.1252	11.58
#3	-0.001	.0025	-0.001	-0.020	.0001	-0.022	.0008	.1321	11.60
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2371	1.731	1.344	16.57	.0109	.0003	3.195	-0.009	0.599
Stddev	.0021	.009	.008	.01	.0009	.0000	.013	.0006	.0001
%RSD	.9019	.5036	.5705	.0584	8.400	12.00	.4007	70.92	.2492
#1	2390	1.734	1.338	16.56	.0119	.0003	3.192	-0.002	.0597
#2	2375	1.737	1.341	16.58	.0107	.0002	3.184	-0.013	.0599
#3	2348	1.721	1.353	16.58	.0101	.0003	3.209	-0.013	.0600
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	.0048	.0012	-0.016	2.176	.0005	.0006	.0339		
Stddev	.0002	.0011	.0001	.014	.0002	.0004	.0007		
%RSD	3.839	90.97	3.214	6534	30.25	76.62	2.199		
#1	.0050	.0001	-0.016	2.184	.0006	.0005	.0346		
#2	.0047	.0022	-0.017	2.160	.0005	.0010	.0332		
#3	.0048	.0013	-0.016	2.185	.0003	.0002	.0339		

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Sample Name: JC85391-1 Acquired: 4/3/2019 0:11:48 Type: Unk  
Method: SGS No Vlave3(v343) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: :  
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	152690.	25634.	4020.7	7230.3
Stddev	194.	198.	5.2	13.9
%RSD	.12708	.77297	.12971	.19220
#1	152550.	25405.	4016.9	7216.3
#2	152910.	25747.	4026.7	7244.1
#3	152610.	25749.	4018.5	7230.4

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Sample Name: JC85391-2 Acquired: 4/3/2019 0:17:00 Type: Unk  
Method: SGS No Vlave3(v343) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: :  
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0238	-0.0000	-0.0011	.0005	.0007	.0016	.3740	.0014	-0.0018
Stddev	.0001	.0000	.0000	.0001	.0001	.0001	.0017	.0001	.0002
%RSD	.5934	4.554	38.33	24.96	7.409	4.314	.4679	9.259	13.28
#1	.0239	-0.0000	-0.0011	.0006	.0008	.0016	.3739	.0015	-0.0016
#2	.0237	-0.0000	-0.0011	.0006	.0007	.0016	.3757	.0015	-0.0021
#3	.0237	-0.0000	-0.0011	.0004	.0008	.0015	.3722	.0013	-0.0017
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0311	.0140	.0025	.0005	.0005	-0.0005	.0005	.2612	15.71
Stddev	.0001	.0005	.0010	.0006	.0001	.0028	.0014	.0050	.03
%RSD	.3551	3.442	39.46	104.4	29.61	516.4	288.2	1.906	.2197
#1	.0310	.0145	.0022	.0004	.0005	.0012	-0.0001	.2581	15.73
#2	.0312	.0138	.0036	.0001	.0006	.0010	.0021	.2585	15.72
#3	.0312	.0136	.0017	.0012	.0003	-0.0038	-0.0006	.2669	15.67
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.102	4.153	1.585	17.22	3.049	.0022	2.764	-0.0004	1.644
Stddev	.002	.013	.008	.01	.0017	.0002	.003	.0004	.0002
%RSD	.2106	.3223	.5147	.0865	.5432	7.031	.1011	116.2	.1293
#1	1.103	4.141	1.592	17.21	.3031	.0024	2.763	-0.0009	.1646
#2	1.103	4.167	1.576	17.24	.3055	.0021	2.767	-0.0001	.1642
#3	1.099	4.150	1.586	17.21	.3062	.0022	2.762	-0.0002	.1644
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	.0093	.0027	-0.0011	3.373	-0.0000	.0005	.0625		
Stddev	.0012	.0005	.0001	.031	.0005	.0015	.0008		
%RSD	13.14	18.78	7.585	.9139	34.79	294.9	1.242		
#1	.0086	.0030	-0.0010	3.350	.0002	.0007	.0620		
#2	.0107	.0030	-0.0012	3.408	-0.0005	.0019	.0634		
#3	.0086	.0021	-0.0011	3.362	.0003	-0.0011	.0622		

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7.2  
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Sample Name: JC85391-2 Acquired: 4/3/2019 0:17:00 Type: Unk  
Method: SGS No Vlave3(v343) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: :  
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	152170.	25518.	4018.0	7216.9
Stddev	625.	84.	11.4	23.1
%RSD	.41058	.32853	.28433	.31982
#1	152530.	25605.	4027.4	7241.8
#2	151450.	25437.	4005.3	7196.2
#3	152530.	25512.	4021.3	7212.6

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Sample Name: CCV Acquired: 4/3/2019 0:22:11 Type: QC  
Method: SGS No Vlave3(v343) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: :  
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.137	1.976	2.046	2.040	2.076	1.963	2.090	2.110	2.241
Stddev	.010	.013	.008	.005	.004	.002	.004	.008	.0009
%RSD	.4734	.6668	.3702	.2694	.1978	.0988	.1882	.3823	.3675
#1	2.137	1.976	2.053	2.045	2.076	1.962	2.089	2.119	2.205
#2	2.147	1.989	2.045	2.039	2.072	1.965	2.087	2.108	2.207
#3	2.127	1.963	2.038	2.034	2.080	1.963	2.094	2.103	2.221
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value Range									
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.047	2.061	1.981	2.108	2.030	1.980	2.073	40.15	38.70
Stddev	.003	.008	.003	.002	.009	.003	.007	.27	.34
%RSD	.1409	.3922	.1705	.1062	.4278	.1651	.3391	.6786	.8741
#1	2.044	2.070	1.984	2.110	2.039	1.983	2.079	40.25	38.85
#2	2.048	2.058	1.981	2.108	2.029	1.977	2.074	40.36	38.94
#3	2.049	2.055	1.977	2.105	2.022	1.979	2.065	39.84	38.32
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value Range									
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	36.38	37.13	40.89	41.45	2.080	2.046	5.001	2.047	2.096
Stddev	.25	.30	.21	.24	.009	.008	.016	.007	.010
%RSD	.6895	.8152	.5203	.5713	.4064	.3781	.3144	.3231	.4968
#1	36.35	37.24	40.84	41.35	2.090	2.053	5.012	2.054	2.093
#2	36.65	37.36	41.12	41.73	2.078	2.048	5.009	2.045	2.107
#3	36.15	36.79	40.70	41.29	2.074	2.038	4.983	2.042	2.087
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value Range									

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Zoom In  
Zoom Out

Sample Name: CCV Acquired: 4/3/2019 0:22:11 Type: QC  
 Method: SGS No Vlave3(v343) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: :  
 Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>2.094</b>	<b>2.036</b>	<b>2.013</b>	<b>1.984</b>	<b>2.031</b>	<b>F 2.208</b>	<b>1.979</b>
Stddev	.004	.009	.003	.003	.009	.012	.004
%RSD	.1655	.4453	.1547	.1390	.4504	.5512	.1933

#1	2.092	2.040	2.010	1.984	2.038	2.207	1.982
#2	2.092	2.042	2.014	1.981	2.036	2.220	1.974
#3	2.098	2.025	2.016	1.987	2.021	2.196	1.980

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Fail Chk Pass  
 Value High Limit 2.000  
 Range Low Limit 10.00%

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>146270.</b>	<b>24816.</b>	<b>3924.2</b>	<b>6730.2</b>
Stddev	286.	313.	10.9	15.3
%RSD	.19563	1.2607	.27670	.22802

#1	146110.	24808.	3913.5	6713.2
#2	146600.	24507.	3923.8	6734.2
#3	146100.	25132.	3935.2	6743.2

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Zoom In  
Zoom Out

Sample Name: CCB Acquired: 4/3/2019 0:27:02 Type: QC  
 Method: SGS No Vlave3(v343) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: :  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.0002</b>	<b>-0.0000</b>	<b>-0.0000</b>	<b>.0000</b>	<b>-0.0003</b>	<b>-0.0004</b>	<b>.0000</b>	<b>-0.0001</b>	<b>-0.0017</b>
Stddev	.0002	.0000	.0000	.0002	.0002	.0002	.0000	.0002	.0003
%RSD	109.4	148.7	99.51	645.3	70.05	41.70	15.73	338.6	20.26

#1	-0.0000	-0.0000	-0.0000	.0003	-0.0005	-0.0006	.0000	-0.0000	-0.0017
#2	.0001	.0000	-0.0000	-0.0002	-0.0001	-0.0003	.0001	.0001	-0.0020
#3	.0003	-0.0000	-0.0001	.0000	-0.0003	-0.0003	.0000	-0.0003	-0.0013

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
 High Limit  
 Low Limit

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-0.0002</b>	<b>.0000</b>	<b>.0002</b>	<b>.0002</b>	<b>-0.0000</b>	<b>-0.0002</b>	<b>.0009</b>	<b>-0.0015</b>	<b>-0.0093</b>
Stddev	.0001	.0002	.0011	.0012	.0007	.0002	.0013	.0033	.0022
%RSD	62.87	784.9	545.5	560.1	3506.	115.7	146.3	218.5	24.22

#1	-0.0001	-0.0001	.0012	-0.0005	.0001	.0001	.0008	-0.0020	-0.0067
#2	-0.0003	-0.0000	-0.0010	.0017	-0.0007	-0.0004	-0.0003	.0020	-0.0110
#3	-0.0002	.0002	.0004	-0.0005	.0006	-0.0003	.0023	-0.0046	-0.0101

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
 High Limit  
 Low Limit

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-0.0024</b>	<b>.0076</b>	<b>.0261</b>	<b>.0603</b>	<b>.0009</b>	<b>.0000</b>	<b>.0007</b>	<b>.0004</b>	<b>-0.0000</b>
Stddev	.0009	.0147	.0108	.0034	.0004	.0001	.0004	.0004	.0000
%RSD	35.30	193.8	41.44	5.680	42.17	279.4	58.32	92.85	63.28

#1	-0.0030	.0046	.0149	.0566	.0008	-0.0001	.0010	.0007	-0.0000
#2	-0.0029	.0236	.0365	.0609	.0013	.0001	.0007	.0007	-0.0000
#3	-0.0014	-0.0054	.0270	.0633	.0006	.0001	.0003	-0.0000	-0.0000

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
 High Limit  
 Low Limit

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7.2  
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Zoom In  
Zoom Out

Sample Name: CCB Acquired: 4/3/2019 0:27:02 Type: QC  
 Method: SGS No Vlave3(v343) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: :  
 Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.0002</b>	<b>.0006</b>	<b>.0001</b>	<b>-0.0020</b>	<b>-0.0000</b>	<b>-0.0012</b>	<b>.0035</b>
Stddev	.0001	.0009	.0002	.0017	.0004	.0004	.0008
%RSD	65.91	143.7	162.4	82.64	9055.	34.65	24.09

#1	.0003	-0.0003	.0003	-0.0031	-0.0003	-0.0012	.0040
#2	.0000	.0007	-0.0001	-0.0001	.0004	-0.0008	.0025
#3	.0003	.0016	.0001	-0.0030	-0.0002	-0.0017	.0041

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
 High Limit  
 Low Limit

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>150280.</b>	<b>24649.</b>	<b>3992.6</b>	<b>7306.3</b>
Stddev	449.	75.	3.8	4.4
%RSD	.29868	.30587	.09470	.06085

#1	149840.	24723.	3988.3	7301.1
#2	150280.	24653.	3995.4	7308.5
#3	150730.	24573.	3994.0	7309.1

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Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Ba 455.403 {74}	<input checked="" type="checkbox"/>	1	Zr	0.000000	0.000000	No
Be 313.042 {108}	<input checked="" type="checkbox"/>	12	V	0.001080	0.000000	No
			Mo	-0.000067	0.000000	No
			Ti	-0.000240	0.000000	No
			Mn	-0.000015	0.000000	No
			Cu	-0.000008	0.000000	No
			Zn	-0.000010	0.000000	No
			Al	0.000000	0.000000	No
			Ni	-0.000050	0.000000	No
			Cr	0.000003	0.000000	No
			Fe	-0.000000	0.000000	No
			Mg	-0.000000	0.000000	No
Cd 228.802 {448}	<input checked="" type="checkbox"/>	11	K	0.000000	0.000000	No
			As	0.011440	0.000000	No
			Ni	-0.000270	0.000000	No
			Fe	-0.000003	0.000000	No
			V	0.000110	0.000000	No
			Ba	0.000021	0.000000	No
			Co	-0.001510	0.000000	No
			Mn	0.000013	0.000000	No
			Cr	0.000090	0.000000	No
			Cu	-0.000009	0.000000	No
			Ti	0.000000	0.000000	No
			Mo	0.000030	0.000000	No
Co 228.616 {448}	<input checked="" type="checkbox"/>	7	Cr	0.000051	0.000000	No
			Mo	-0.000940	0.000000	No
			Ni	0.000091	0.000000	No
			Ti	0.001789	0.000000	No
			W	0.000160	0.000000	No
			Cd	0.000012	0.000000	No
			Be	0.000100	0.000000	No
Cr 267.716 {126}	<input checked="" type="checkbox"/>	7	Mn	0.000160	0.000000	No
			Mo	-0.000099	0.000000	No
			Ba	0.000013	0.000000	No
			Cu	0.000020	0.000000	No
			Sr	-0.000100	0.000000	No
			Fe	-0.000016	0.000000	No
			W	0.000000	0.000000	No
Cu 324.754 {104}2	<input checked="" type="checkbox"/>	15	Cr	0.000056	0.000000	No
			V	-0.000474	0.000000	No
			Mo	0.000515	0.000000	No
			Ti	-0.000040	0.000000	No
			Fe	-0.000055	0.000000	No
			Sn	0.000103	0.000000	No
			Co	-0.001131	0.000000	No
			Zr	0.000170	0.000000	No
			Si	-0.000007	0.000000	No
			Ag	-0.000077	0.000000	No
			Sb	0.000010	0.000000	No
			B	0.000000	0.000000	No
			Mg	-0.000001	0.000000	No
			Al	0.000005	0.000000	No
			W	0.000000	0.000000	No
Mn 257.610 {131}	<input checked="" type="checkbox"/>	8	Fe	-0.000090	0.000000	No
			Si	0.000011	0.000000	No
			Ba	0.000012	0.000000	No
			Ni	0.000028	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Mo	0.000000	0.000000	No
			Cr	-0.000110	0.000000	No
			Mg	0.000000	0.000000	No
			Al	0.000000	0.000000	No
Ni 231.604 {446}	<input checked="" type="checkbox"/>	10	Fe	0.000025	0.000000	No
			Zn	-0.000021	0.000000	No
			Be	-0.000112	0.000000	No
			Co	0.000115	0.000000	No
			Ti	0.000209	0.000000	No
			Mo	-0.000137	0.000000	No
			V	-0.000032	0.000000	No
			Cu	0.000078	0.000000	No
			Se	0.000286	0.000000	No
			Sn	-0.000026	0.000000	No
Ag 328.068 {103}	<input checked="" type="checkbox"/>	15	Mn	0.000162	0.000000	No
			Mo	-0.000181	0.000000	No
			Ti	-0.002575	0.000000	No
			Fe	-0.000301	0.000000	No
			V	-0.000291	0.000000	No
			Zn	0.000010	0.000000	No
			Ca	-0.000004	0.000000	No
			Al	-0.000005	0.000000	No
			Ba	-0.000095	0.000000	No
			Cr	0.000016	0.000000	No
			Si	-0.000000	0.000000	No
			Zr	0.007600	0.000000	No
			W	0.000000	0.000000	No
			Sn	0.000095	0.000000	No
			Ni	0.000020	0.000000	No
V 292.402 {115}	<input checked="" type="checkbox"/>	6	Ti	0.000734	0.000000	No
			Mo	-0.000100	0.000000	No
			Sr	0.000000	0.000000	No
			Cr	-0.006250	0.000000	No
			Mn	-0.002400	0.000000	No
			Fe	0.000010	0.000000	No
Zn 206.200 {464}	<input checked="" type="checkbox"/>	13	Cr	-0.001272	0.000000	No
			Mo	-0.000125	0.000000	No
			Fe	-0.000015	0.000000	No
			Ba	0.000108	0.000000	No
			Sr	-0.000023	0.000000	No
			Sn	0.000069	0.000000	No
			Cu	0.000156	0.000000	No
			As	0.000449	0.000000	No
			Be	0.000071	0.000000	No
			Bi	-0.002000	0.000000	No
			Mn	0.000055	0.000000	No
			W	0.000000	0.000000	No
			Al	0.000008	0.000000	No
As 189.042 {478}	<input checked="" type="checkbox"/>	22	Al	0.000000	0.000000	No
			Fe	-0.000064	0.000000	No
			Ca	-0.000005	0.000000	No
			Mn	-0.000092	0.000000	No
			Mo	0.000700	0.000000	No
			Cr	-0.002750	0.000000	No
			V	0.000033	0.000000	No
			Co	-0.000000	0.000000	No
			Sn	-0.000151	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Cd	0.000092	0.000000	No
			Tl	0.000150	0.000000	No
			Si	-0.000050	0.000000	No
			Zn	0.000030	0.000000	No
			Sr	-0.000090	0.000000	No
			Zr	-0.000300	0.000000	No
			Ti	-0.000176	0.000000	No
			Cu	0.000100	0.000000	No
			Ag	0.000300	0.000000	No
			Mg	-0.000001	0.000000	No
			W	0.000000	0.000000	No
			S	0.000006	0.000000	No
			B	0.000067	0.000000	No
Tl 190.856 {477}	<input checked="" type="checkbox"/>	24	Cr	0.000071	0.000000	No
			Mo	-0.008200	0.000000	No
			Al	0.000012	0.000000	No
			Fe	-0.000082	0.000000	No
			V	-0.022500	0.000000	No
			Mn	0.001341	0.000000	No
			Si	0.000035	0.000000	No
			Ca	-0.000003	0.000000	No
			Ti	-0.002500	0.000000	No
			Mg	-0.000001	0.000000	No
			Co	0.004500	0.000000	No
			Sr	-0.000060	0.000000	No
			B	-0.000164	0.000000	No
			Ba	0.000150	0.000000	No
			Zn	-0.000148	0.000000	No
			As	0.000005	0.000000	No
			Ni	-0.000020	0.000000	No
			Pb	0.000035	0.000000	No
			S	-0.000020	0.000000	No
			W	-0.023000	0.000000	No
			K	0.000000	0.000000	No
			Sn	-0.000200	0.000000	No
			Ag	0.000700	0.000000	No
Pb 220.353 {453}	<input checked="" type="checkbox"/>	22	Cu	0.000015	0.000000	No
			Al	-0.000110	0.000000	No
			Fe	0.000040	0.000000	No
			Ca	0.000001	0.000000	No
			Mn	0.000023	0.000000	No
			Zn	-0.000036	0.000000	No
			Mo	-0.000900	0.000000	No
			Cu	0.000777	0.000000	No
			V	-0.000093	0.000000	No
			Co	0.000479	0.000000	No
			Ti	-0.000410	0.000000	No
			Si	0.000092	0.000000	No
			Ba	-0.000012	0.000000	No
			Sb	-0.000190	0.000000	No
			Sr	0.000070	0.000000	No
			W	0.000000	0.000000	No
			Cd	-0.000018	0.000000	No
			Cr	-0.000118	0.000000	No
			Zr	-0.000279	0.000000	No
			Ni	0.000015	0.000000	No
			S	0.000010	0.000000	No



Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			B	0.000000	0.000000	No
			Mg	0.000006	0.000000	No
Se 196.090 {472}	<input checked="" type="checkbox"/>	21	Al	0.000009	0.000000	No
			Ca	-0.000009	0.000000	No
			Mn	0.000706	0.000000	No
			Mo	0.000153	0.000000	No
			Fe	-0.000334	0.000000	No
			Co	-0.000372	0.000000	No
			V	0.000020	0.000000	No
			Sr	0.000042	0.000000	No
			Si	-0.000156	0.000000	No
			Tl	-0.000520	0.000000	No
			Be	-0.000543	0.000000	No
			Zn	0.000095	0.000000	No
			B	0.000150	0.000000	No
			Ti	-0.000122	0.000000	No
			Cd	0.000090	0.000000	No
			Zr	0.000447	0.000000	No
			Ba	0.000281	0.000000	No
			Mg	-0.000004	0.000000	No
			Cr	-0.000107	0.000000	No
			S	-0.000001	0.000000	No
			W	0.000000	0.000000	No
Sb 206.833 {463}	<input checked="" type="checkbox"/>	14	Fe	-0.000023	0.000000	No
			Al	0.000027	0.000000	No
			Ca	0.000006	0.000000	No
			Ni	-0.000370	0.000000	No
			Cr	0.020000	0.000000	No
			V	-0.003200	0.000000	No
			Zn	-0.000176	0.000000	No
			Mo	0.000564	0.000000	No
			Ti	0.000370	0.000000	No
			Sn	-0.008600	0.000000	No
			Mg	0.000000	0.000000	No
			Zr	-0.000089	0.000000	No
			Sr	-0.000049	0.000000	No
			W	0.000000	0.000000	No
Al 396.152 { 85}	<input checked="" type="checkbox"/>	5	Si	0.000378	0.000000	No
			Ca	0.000048	0.000000	No
			Mo	0.041057	0.000000	No
			Zr	0.006900	0.000000	No
			Tl	-0.000017	0.000000	No
Ca 317.933 {106}	<input checked="" type="checkbox"/>	14	Fe	0.000130	0.000000	No
			W	0.003960	0.000000	No
			Tl	0.004948	0.000000	No
			Be	0.001840	0.000000	No
			Ba	0.003500	0.000000	No
			Cu	-0.001800	0.000000	No
			Cd	0.003700	0.000000	No
			Ni	0.001513	0.000000	No
			B	-0.000210	0.000000	No
			Se	0.002000	0.000000	No
			Co	0.000540	0.000000	No
			Cr	0.000640	0.000000	No
			Al	0.000026	0.000000	No
			As	0.002488	0.000000	No
Fe 259.940 {130}	<input checked="" type="checkbox"/>	8	Cr	-0.000566	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Mn	-0.000025	0.000000	No
			V	-0.000064	0.000000	No
			Cu	0.001043	0.000000	No
			Zn	0.000046	0.000000	No
			Ti	-0.000631	0.000000	No
			Ca	-0.000020	0.000000	No
Mg 279.079 {121}	<input checked="" type="checkbox"/>	2	Ba	-0.009000	0.000000	No
			Mo	-0.017699	0.000000	No
K 766.490 { 44}	<input checked="" type="checkbox"/>	10	Ti	-0.014200	0.000000	No
			Al	-0.000023	0.000000	No
			Ca	-0.000071	0.000000	No
			Mn	0.001430	0.000000	No
			Si	-0.003000	0.000000	No
			V	-0.002000	0.000000	No
			Sn	-0.004700	0.000000	No
			Ba	-0.002700	0.000000	No
			Mo	0.007150	0.000000	No
			Cu	-0.010000	0.000000	No
Na 589.592 { 57}	<input checked="" type="checkbox"/>	5	Ni	-0.010000	0.000000	No
			K	-0.000560	0.000000	No
			Ba	0.000900	0.000000	No
			Ca	0.000055	0.000000	No
			Al	0.000040	0.000000	No
			V	-0.005000	0.000000	No
B 208.959 {462}	<input checked="" type="checkbox"/>	1	Mo	0.032000	0.000000	No
Mo 202.030 {467}	<input checked="" type="checkbox"/>	1	Fe	-0.000010	0.000000	No
Si 212.412 {459}	<input checked="" type="checkbox"/>	14	Sr	0.000366	0.000000	No
			Ni	0.000106	0.000000	No
			Mo	0.031809	0.000000	No
			V	0.017760	0.000000	No
			Ti	0.003229	0.000000	No
			Al	0.000009	0.000000	No
			Cd	0.001043	0.000000	No
			Ba	0.000170	0.000000	No
			Sn	0.008217	0.000000	No
			Zn	0.000385	0.000000	No
			As	0.000140	0.000000	No
			Pb	0.000471	0.000000	No
			Ca	0.000007	0.000000	No
Sn 189.989 {478}	<input checked="" type="checkbox"/>	5	W	0.000000	0.000000	No
			Ti	-0.001861	0.000000	No
			Mo	0.000011	0.000000	No
			Si	-0.000009	0.000000	No
			Fe	0.000000	0.000000	No
			W	0.000000	0.000000	No
Sr 407.771 { 83}	<input checked="" type="checkbox"/>	1	Ca	0.000034	0.000000	No
Ti 334.904 {101}	<input checked="" type="checkbox"/>	3	Cr	0.000069	0.000000	No
			Mo	0.001400	0.000000	No
			Si	0.000035	0.000000	No
Y 360.073 { 94}* Y 371.030 { 91}* Y 224.306 {451}* In 230.606 {446}* W 207.911 {462}	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	None None None None 18				
			As	-0.000459	0.000000	No
			Mn	-0.000110	0.000000	No
			Mo	-0.000300	0.000000	No
			Sr	0.000050	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			V	-0.000140	0.000000	No
			Cd	-0.000650	0.000000	No
			Cr	-0.000390	0.000000	No
			Zn	0.009921	0.000000	No
			Sn	0.001300	0.000000	No
			Zr	-0.002570	0.000000	No
			Sb	-0.000200	0.000000	No
			Co	0.000041	0.000000	No
			Ni	-0.000263	0.000000	No
			Be	-0.000130	0.000000	No
			Se	-0.002600	0.000000	No
			Cu	-0.000118	0.000000	No
			Ba	-0.000090	0.000000	No
Zr 339.198 { 99}	<input checked="" type="checkbox"/>	6	Tl	-0.000110	0.000000	No
			Mo	0.001030	0.000000	No
			Fe	-0.000070	0.000000	No
			Si	0.000538	0.000000	No
			Ti	0.000894	0.000000	No
			V	0.000120	0.000000	No
			W	0.035000	0.000000	No
S 182.034 {485}	<input checked="" type="checkbox"/>	9	Ca	-0.000013	0.000000	No
			Mo	-0.005780	0.000000	No
			Al	-0.000141	0.000000	No
			Fe	-0.000100	0.000000	No
			Mn	0.004210	0.000000	No
			Zn	-0.001538	0.000000	No
			Cd	-0.001300	0.000000	No
			W	0.000000	0.000000	No
			Mg	-0.000010	0.000000	No
Bi 223.061 {451}	<input checked="" type="checkbox"/>	9	V	-0.000380	0.000000	No
			Co	-0.010715	0.000000	No
			Mg	-0.000002	0.000000	No
			W	-0.003914	0.000000	No
			Cu	-0.000858	0.000000	No
			Fe	0.000098	0.000000	No
			Cr	0.001500	0.000000	No
			Ti	-0.009340	0.000000	No
			Mo	-0.000200	0.000000	No
Li 670.784 { 50}	<input checked="" type="checkbox"/>	1	Ca	0.000015	0.000000	No
P 177.495 {490}	<input checked="" type="checkbox"/>	None				

Element, Wavelength and Order	Date of Fit	Date of Cal.	Type of Fit	Weighting	A0	A1	A2	n (Exponent)
Ba 455.403 { 74}	4/3/2019 9:25:01	4/2/2019 19:05:23	Linear	None	0.003192	1.840421	0.000000	1.000000
Be 313.042 {108}	4/3/2019 9:25:01	4/2/2019 19:05:23	Linear	None	0.000152	2.951584	0.000000	1.000000
Cd 228.802 {448}	4/3/2019 9:25:01	4/2/2019 19:05:23	Linear	None	0.000928	1.326081	0.000000	1.000000
Co 228.616 {448}	4/3/2019 9:25:01	4/2/2019 19:05:23	Linear	None	-0.000400	0.791029	0.000000	1.000000
Cr 267.716 {126}	4/3/2019 9:25:01	4/2/2019 19:05:23	Linear	None	-0.000009	0.102285	0.000000	1.000000
Cu 324.754 {104}2	4/3/2019 9:25:01	4/2/2019 19:05:23	Linear	None	0.001802	0.276307	0.000000	1.000000
Mn 257.610 {131}	4/3/2019 9:25:01	4/2/2019 19:05:23	Linear	None	0.000088	0.732344	0.000000	1.000000
Ni 231.604 {446}	4/3/2019 9:25:01	4/2/2019 19:05:23	Linear	None	0.000532	0.545521	0.000000	1.000000
Ag 328.068 {103}	4/3/2019 9:25:01	4/2/2019 19:05:23	Linear	None	-0.001455	0.125201	0.000000	1.000000
V 292.402 {115}	4/3/2019 9:25:01	4/2/2019 19:05:23	Linear	None	0.000166	0.163486	0.000000	1.000000
Zn 206.200 {464}	4/3/2019 9:25:01	4/2/2019 19:05:23	Linear	None	0.000395	1.186397	0.000000	1.000000
As 189.042 {478}	4/3/2019 9:25:01	4/2/2019 19:05:23	Linear	None	-0.000387	0.105562	0.000000	1.000000
Tl 190.856 {477}	4/3/2019 9:25:01	4/2/2019 19:05:23	Linear	None	-0.000079	0.067089	0.000000	1.000000
Pb 220.353 {453}	4/3/2019 9:25:01	4/2/2019 19:05:23	Linear	None	-0.000054	0.203484	0.000000	1.000000
Se 196.090 {472}	4/3/2019 9:25:01	4/2/2019 19:05:23	Linear	None	0.000250	0.082365	0.000000	1.000000
Sb 206.833 {463}	4/3/2019 9:25:01	4/2/2019 19:05:23	Linear	None	0.000547	0.175864	0.000000	1.000000
Al 396.152 { 85}	4/3/2019 9:25:01	4/2/2019 19:05:23	Linear	None	0.001405	0.037049	0.000000	1.000000
Ca 317.933 {106}	4/3/2019 9:25:01	4/2/2019 19:05:23	Linear	None	0.004336	0.065709	0.000000	1.000000
Fe 259.940 {130}	4/3/2019 9:25:01	4/2/2019 19:05:23	Linear	None	0.000160	0.035416	0.000000	1.000000
Mg 279.079 {121}	4/3/2019 9:25:01	4/2/2019 19:05:23	Linear	None	-0.000106	0.006002	0.000000	1.000000
K 766.490 { 44}	4/3/2019 9:25:01	4/2/2019 19:05:23	Linear	None	0.004092	0.017460	0.000000	1.000000
Na 589.592 { 57}	4/3/2019 9:25:01	4/2/2019 19:05:23	Linear	None	0.006059	0.075062	0.000000	1.000000
B 208.959 {462}	4/3/2019 9:25:01	4/2/2019 19:05:23	Linear	None	0.000848	0.236086	0.000000	1.000000
Mo 202.030 {467}	4/3/2019 9:25:01	4/2/2019 19:05:23	Linear	None	-0.000268	0.872280	0.000000	1.000000
Si 212.412 {459}	4/3/2019 9:25:01	4/2/2019 19:05:23	Linear	None	0.003529	0.260430	0.000000	1.000000
Sn 189.989 {478}	4/3/2019 9:25:01	4/2/2019 19:05:23	Linear	None	0.000312	0.175612	0.000000	1.000000
Sr 407.771 { 83}	4/3/2019 9:25:01	4/2/2019 19:05:23	Linear	None	-0.002070	3.755319	0.000000	1.000000
Ti 334.904 {101}	4/3/2019 9:25:01	4/2/2019 19:05:23	Linear	None	0.000112	0.184179	0.000000	1.000000
Y 360.073 { 94}*	4/3/2019 9:25:01	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
Y 371.030 { 91}*	4/3/2019 9:25:01	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
Y 224.306 {451}*	4/3/2019 9:25:01	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
In 230.606 {446}*	4/3/2019 9:25:01	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
W 207.911 {462}	4/3/2019 9:25:01	4/2/2019 19:05:23	Linear	None	0.000053	0.410875	0.000000	1.000000
Zr 339.198 { 99}	4/3/2019 9:25:01	4/2/2019 19:05:23	Linear	None	-0.000340	0.376237	0.000000	1.000000
S 182.034 {485}	4/3/2019 9:25:01	4/2/2019 19:05:23	Linear	None	-0.000737	0.049141	0.000000	1.000000
Bi 223.061 {451}	4/3/2019 9:25:01	4/2/2019 19:05:23	Linear	None	-0.001180	0.270409	0.000000	1.000000
Li 670.784 { 50}	4/3/2019 9:25:01	4/2/2019 19:05:23	Linear	None	0.000188	0.584940	0.000000	1.000000
P 177.495 {490}	4/3/2019 9:25:01	4/2/2019 19:05:23	Linear	None	-0.003150	0.117162	0.000000	1.000000

Element, Wavelength and Order	Correlation	Std Error of Est	Predicted MDL	Predicted MLQ	Status	Reslope		QC Norm	
						Slope	Y-int	Slope factor	Offset
Ba 455.403 { 74}	1.000000	0.000000	0.000151	0.000502	OK	1.000000	0.000000	1	0
Be 313.042 {108}	1.000000	0.000000	0.000043	0.000144	OK	1.000000	0.000000	1	0
Cd 228.802 {448}	1.000000	0.000000	0.000160	0.000535	OK	1.000000	0.000000	1	0
Co 228.616 {448}	1.000000	0.000000	0.000232	0.000773	OK	1.000000	0.000000	1	0
Cr 267.716 {126}	1.000000	0.000000	0.000261	0.000871	OK	1.000000	0.000000	1	0
Cu 324.754 {104}2	1.000000	0.000000	0.000242	0.000807	OK	1.000000	0.000000	1	0
Mn 257.610 {131}	1.000000	0.000000	0.000036	0.000119	OK	1.000000	0.000000	1	0
Ni 231.604 {446}	1.000000	0.000000	0.000295	0.000982	OK	1.000000	0.000000	1	0
Ag 328.068 {103}	1.000000	0.000000	0.000361	0.001203	OK	1.000000	0.000000	1	0
V 292.402 {115}	1.000000	0.000000	0.000272	0.000907	OK	1.000000	0.000000	1	0
Zn 206.200 {464}	1.000000	0.000000	0.000150	0.000498	OK	1.000000	0.000000	1	0
Zn 206.200 {464}	1.000000	0.000000	0.000150	0.000498	OK	1.000000	0.000000	1	0
As 189.042 {478}	1.000000	0.000000	0.001289	0.004296	OK	1.000000	0.000000	1	0
Tl 190.856 {477}	1.000000	0.000000	0.001291	0.004304	OK	1.000000	0.000000	1	0
Pb 220.353 {453}	1.000000	0.000000	0.001115	0.003718	OK	1.000000	0.000000	1	0
Se 196.090 {472}	1.000000	0.000000	0.002193	0.007310	OK	1.000000	0.000000	1	0
Sb 206.833 {463}	1.000000	0.000000	0.001307	0.004357	OK	1.000000	0.000000	1	0
Al 396.152 { 85}	1.000000	0.000000	0.006954	0.023179	OK	1.000000	0.000000	1	0
Ca 317.933 {106}	1.000000	0.000000	0.002031	0.006770	OK	1.000000	0.000000	1	0
Fe 259.940 {130}	1.000000	0.000000	0.002010	0.006700	OK	1.000000	0.000000	1	0
Mg 279.079 {121}	1.000000	0.000000	0.014806	0.049352	OK	1.000000	0.000000	1	0
K 766.490 { 44}	1.000000	0.000000	0.029463	0.098209	OK	1.000000	0.000000	1	0
Na 589.592 { 57}	1.000000	0.000000	0.006831	0.022771	OK	1.000000	0.000000	1	0
B 208.959 {462}	1.000000	0.000000	0.000671	0.002237	OK	1.000000	0.000000	1	0
Mo 202.030 {467}	1.000000	0.000000	0.000231	0.000770	OK	1.000000	0.000000	1	0
Si 212.412 {459}	1.000000	0.000000	0.000927	0.003089	OK	1.000000	0.000000	1	0
Sn 189.989 {478}	1.000000	0.000000	0.000770	0.002568	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
Tl 334.904 {101}	1.000000	0.000000	0.000226	0.000754	OK	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
Y 224.306 {451}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	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
W 207.911 {462}	1.000000	0.000000	0.000965	0.003216	OK	1.000000	0.000000	1	0
Zr 339.198 { 99}	1.000000	0.000000	0.000134	0.000445	OK	1.000000	0.000000	1	0
S 182.034 {485}	1.000000	0.000000	0.003048	0.010159	OK	1.000000	0.000000	1	0
Bi 223.061 {451}	1.000000	0.000000	0.001180	0.003935	OK	1.000000	0.000000	1	0
Li 670.784 { 50}	1.000000	0.000000	0.000891	0.002969	OK	1.000000	0.000000	1	0
P 177.495 {490}	1.000000	0.000000	0.001287	0.004291	OK	1.000000	0.000000	1	0

Sample Name: STDA Acquired: 4/3/2019 10:02:29 Type: Cal  
 Method: SGS 3(v260) Mode: IR Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>0056</b>	<b>-0002</b>	<b>-0001</b>	<b>-0002</b>	<b>-0000</b>	<b>0020</b>	<b>0000</b>	<b>-0002</b>	<b>-0004</b>
Stddev	.0005	.0002	.0000	.0000	.0000	.0001	.0000	.0001	.0000
%RSD	9.084	85.57	34.38	6.255	441.9	2.822	52.55	60.27	5.318
#1	.0062	-.0004	.0001	-.0002	.0000	.0020	.0001	-.0002	-.0004
#2	.0054	-.0000	.0001	-.0003	-.0000	.0020	.0000	-.0002	-.0004
#3	.0053	-.0003	.0002	-.0002	-.0000	.0021	.0000	-.0001	-.0005
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>-0000</b>	<b>-0007</b>	<b>-0002</b>	<b>-0002</b>	<b>-0004</b>	<b>0002</b>	<b>-0005</b>	<b>-0014</b>	<b>0051</b>
Stddev	.0000	.0001	.0001	.0000	.0003	.0002	.0001	.0003	.0002
%RSD	285.8	12.59	36.58	24.53	76.10	79.72	12.23	19.98	4.891
#1	.0000	.0008	-.0001	-.0001	-.0001	.0001	-.0006	-.0013	.0050
#2	-.0000	.0007	-.0001	-.0002	-.0003	.0004	-.0004	-.0017	.0054
#3	.0000	.0006	-.0003	-.0002	-.0006	.0001	-.0005	-.0012	.0049
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>0001</b>	<b>-0000</b>	<b>0048</b>	<b>-0006</b>	<b>0004</b>	<b>0001</b>	<b>0028</b>	<b>0002</b>	<b>0008</b>
Stddev	.0001	.0001	.0010	.0006	.0001	.0000	.0002	.0001	.0004
%RSD	80.33	355.9	20.69	92.15	22.59	76.21	7.597	47.00	49.64
#1	.0000	-.0001	.0057	-.0008	.0005	.0001	.0026	.0001	.0006
#2	.0000	-.0001	.0051	-.0010	.0004	.0000	.0029	.0002	.0013
#3	.0001	-.0001	.0037	-.0000	.0004	.0001	.0030	.0003	.0005
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S		
Avg	<b>-0000</b>	<b>0014</b>	<b>-0002</b>	<b>-0013</b>	<b>-0007</b>	<b>0012</b>	<b>-0080</b>		
Stddev	.0000	.0004	.0001	.0000	.0001	.0001	.0001		
%RSD	66.61	27.70	31.90	3.562	7.570	8.143	1.050		
#1	-.0000	.0011	-.0001	-.0013	-.0007	.0011	-.0079		
#2	-.0001	.0013	-.0002	-.0014	-.0007	.0013	-.0079		
#3	-.0000	.0018	-.0002	-.0013	-.0006	.0011	-.0081		

Sample Name: STDA Acquired: 4/3/2019 10:02:29 Type: Cal  
 Method: SGS 3(v260) Mode: IR Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	108780	10780	4423.6	9737.6
Stddev	2745	639	14.9	29.4
%RSD	2.5230	5.9301	.33643	.30207
#1	105620	10416	4440.0	9765.2
#2	110100	10405	4411.1	9706.6
#3	110610	11518	4419.5	9740.9

Sample Name: STDB Acquired: 4/3/2019 10:07:55 Type: Cal  
 Method: SGS 3(v260) Mode: IR Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>7044</b>	<b>5669</b>	<b>3566</b>	<b>2049</b>	<b>2262</b>	<b>7177</b>	<b>1216</b>	<b>1489</b>	<b>0470</b>
Stddev	.035	.022	.005	.004	.0007	.0019	.003	.002	.0001
%RSD	.4953	.3837	.1405	.1754	.2900	.2599	.2076	.1384	.1478
#1	7.018	5.653	3.572	2.053	2.255	.7178	1.213	1.491	.0470
#2	7.031	5.660	3.565	2.047	2.263	.7159	1.217	1.487	.0469
#3	7.084	5.693	3.562	2.047	2.269	.7196	1.218	1.488	.0471
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>3833</b>	<b>5280</b>	<b>5147</b>	<b>2550</b>	<b>7396</b>	<b>4081</b>	<b>7118</b>	<b>2770</b>	<b>3819</b>
Stddev	.0009	.016	.0007	.0005	.0017	.0007	.0015	.015	.019
%RSD	.2240	.2967	.1403	.2023	.2363	.1758	.2040	.5558	.4864
#1	.3824	5.298	5.154	2.548	7.414	.4089	.7130	2.759	3.803
#2	.3835	5.271	5.149	2.546	7.394	.4080	.7121	2.764	3.816
#3	.3841	5.272	5.140	2.555	7.380	.4074	.7102	2.788	3.840
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>1261</b>	<b>2558</b>	<b>2465</b>	<b>7553</b>	<b>8825</b>	<b>3696</b>	<b>2373</b>	<b>8713</b>	<b>1283</b>
Stddev	.005	.0015	.011	.033	.0020	.006	.003	.0009	.06
%RSD	.3970	.6019	.4466	.4351	.2277	.1592	.1406	.1021	.4779
#1	1.256	.2543	2.456	7.531	8848	3.702	2.377	.8723	12.78
#2	1.260	.2556	2.462	7.536	8819	3.693	2.372	.8706	12.80
#3	1.266	.2574	2.477	7.591	8809	3.692	2.370	.8710	12.90
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S		
Avg	<b>4976</b>	<b>1848</b>	<b>1275</b>	<b>2249</b>	<b>8692</b>	<b>2718</b>	<b>5316</b>		
Stddev	.0011	.005	.002	.0005	.0021	.015	.0011		
%RSD	.2299	.2713	.1446	.2265	.2379	.5378	.2088		
#1	.4969	1.853	1.274	2.244	8709	2.711	.5313		
#2	.4969	1.847	1.274	2.251	8697	2.709	.5307		
#3	.4989	1.843	1.277	2.254	8669	2.735	.5328		

Sample Name: STDB Acquired: 4/3/2019 10:07:55 Type: Cal  
 Method: SGS 3(v260) Mode: IR Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	101170	10171	4162.3	8390.8
Stddev	471	67	6.5	8.5
%RSD	.46564	.65612	.15579	.10081
#1	101710	10248	4154.8	8381.4
#2	100970	10131	4166.3	8397.8
#3	100830	10134	4165.7	8393.1



Sample Name: sampleconf Acquired: 4/3/2019 10:23:24 Type: Unk  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.001	-0.001	0.001	0.001	0.011	-0.002	0.005	-0.001	-0.003
Stddev	.0001	.0001	.0001	.0001	.0002	.0001	.0000	.0001	.0002
%RSD	121.2	171.8	90.62	71.71	18.07	40.43	1.663	124.0	89.66
#1	-0.001	-0.002	0.003	0.001	0.011	-0.003	0.005	-0.002	-0.004
#2	0.000	-0.000	0.002	0.003	0.013	-0.001	0.005	0.000	0.000
#3	-0.001	0.000	0.000	0.001	0.009	-0.002	0.005	-0.002	-0.004
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.000	0.009	-0.003	-0.009	0.004	-0.007	-0.005	0.005	-0.039
Stddev	0.000	0.001	0.002	0.011	0.005	0.008	0.004	0.002	0.032
%RSD	400.3	9.127	87.75	117.7	125.9	103.9	87.12	94.46	80.35
#1	0.000	0.008	0.000	-0.007	-0.002	-0.016	-0.004	0.004	-0.010
#2	-0.000	0.009	-0.004	-0.021	0.006	-0.002	-0.009	0.053	-0.036
#3	-0.000	0.009	-0.004	0.000	0.008	-0.004	-0.001	0.108	-0.073
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.797	0.127	0.062	0.029	0.017	0.002	0.066	-0.008	-0.001
Stddev	0.098	0.142	0.128	0.044	0.001	0.002	0.011	0.002	0.000
%RSD	5.466	111.9	207.4	150.1	7.402	133.6	16.59	20.48	39.84
#1	1.853	-0.290	-0.108	-0.019	0.017	0.001	0.069	-0.007	-0.001
#2	1.854	-0.065	0.083	0.068	0.018	-0.000	0.076	-0.010	-0.001
#3	1.683	-0.026	-0.160	0.038	0.016	0.004	0.054	-0.007	-0.001
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	-0.000	0.002	0.002	0.004	-0.009	0.008	0.020		
Stddev	0.002	0.009	0.001	0.016	0.016	0.004	0.011		
%RSD	644.5	540.7	53.43	421.2	184.3	44.51	53.27		
#1	0.001	-0.009	0.003	0.002	-0.022	0.009	0.032		
#2	-0.002	0.006	0.001	-0.012	-0.012	0.004	0.012		
#3	-0.000	0.008	0.002	0.021	0.009	0.011	0.016		

Sample Name: sampleconf Acquired: 4/3/2019 10:23:24 Type: Unk  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	110690.	10363.	4396.0	9691.5
Stddev	697.	456.	13.0	30.3
%RSD	62960	4.4049	29490	31254
#1	110760.	10083.	4409.6	9724.4
#2	111350.	10117.	4383.8	9664.8
#3	109960.	10890.	4394.7	9685.2

7.3  
7

Sample Name: icv 1 Acquired: 4/3/2019 10:28:52 Type: QC  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.984	1.988	1.989	2.001	1.969	1.935	1.992	1.975	2.471
Stddev	.003	.004	.004	.002	.010	.009	.010	.003	.007
%RSD	.1294	.1782	.2038	.1009	5.280	4.894	5.186	.1745	.2876
#1	1.985	1.990	1.992	2.002	1.977	1.944	2.000	1.978	2.479
#2	1.985	1.990	1.992	2.002	1.972	1.937	1.996	1.977	2.467
#3	1.981	1.984	1.985	1.999	1.957	1.925	1.981	1.971	2.466
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value Range									
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.964	1.983	1.944	2.036	1.979	1.956	1.940	39.70	40.37
Stddev	.010	.007	.001	.006	.005	.004	.001	.06	.04
%RSD	.5238	.3370	.0543	.2829	.2641	.1951	.0403	.1537	.0997
#1	1.973	1.987	1.945	2.029	1.983	1.957	1.939	39.77	40.39
#2	1.965	1.986	1.944	2.040	1.981	1.959	1.941	39.68	40.32
#3	1.953	1.975	1.943	2.037	1.973	1.952	1.940	39.66	40.39
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value Range									
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	40.46	39.93	39.87	39.89	2.002	1.963	5.102	1.978	1.981
Stddev	.05	0.17	.05	.05	.002	.004	.008	.005	.005
%RSD	.1141	.4325	.1331	.1226	.0946	.1882	.1595	.2577	.2535
#1	40.51	39.79	39.83	39.90	2.004	1.965	5.111	1.981	1.984
#2	40.43	40.12	39.93	39.94	2.000	1.965	5.099	1.982	1.984
#3	40.43	39.88	39.85	39.84	2.003	1.959	5.095	1.972	1.975
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value Range									

Sample Name: icv 1 Acquired: 4/3/2019 10:28:52 Type: QC  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.951	1.925	1.933	1.926	1.910	1.922	2.001
Stddev	.010	.006	.009	.007	.004	.004	.008
%RSD	.5091	.2892	.4698	.3775	.1816	.1953	.3990
#1	1.958	1.927	1.942	1.921	1.914	1.926	1.997
#2	1.954	1.929	1.935	1.935	1.909	1.919	2.010
#3	1.939	1.919	1.924	1.923	1.907	1.921	1.996
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value Range							
Int. Std.	Y_3600	Y_3710	Y_2243	In2306			
Units	Cts/S	Cts/S	Cts/S	Cts/S			
Avg	103820.	10297.	4265.8	8721.9			
Stddev	429.	48.	4.2	7.2			
%RSD	.41334	.46807	.09853	.08220			
#1	103450.	10352.	4265.7	8722.6			
#2	103720.	10280.	4261.7	8714.4			
#3	104290.	10260.	4270.1	8728.7			



Table with 10 columns (Elem, Units, Avg, Stddev, %RSD, #1, #2, #3) and 10 rows (Ba4554, Be3130, Cd2288, Co2286, Cr2677, Cu3247, Mn2576, Ni2316, Ag3280). Includes sample name, method, and user information.

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Table with 10 columns (Elem, Units, Avg, Stddev, %RSD, #1, #2, #3) and 10 rows (Ti3349, W\_2079, Zr3391, S\_1820, Bi2230, Li6707, P\_1774). Includes sample name, method, and user information.

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Table with 10 columns (Elem, Units, Avg, Stddev, %RSD, #1, #2, #3, #4) and 10 rows (Ba4554, Be3130, Cd2288, Co2286, Cr2677, Cu3247, Mn2576, Ni2316, Ag3280). Includes sample name, method, and user information.

Raw Data MA46419 page 15 of 313

Table with 10 columns (Elem, Units, Avg, Stddev, %RSD, #1, #2, #3, #4) and 10 rows (Fe2599, Mg2790, K\_7664, Na5895, B\_2089, Mo2020, Si2124, Sn1899, Sr4077). Includes sample name, method, and user information.

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7.3

7

Sample Name: iccv 1 Acquired: 4/3/2019 10:40:14 Type: QC  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	103780.	10327.	4292.0	8760.0
Stddev	197.	40.	53.5	98.8
%RSD	.18961	.38356	1.2466	1.1275
#1	103560.	10339.	4371.8	8907.4
#2	103770.	10274.	4259.9	8697.6
#3	103750.	10326.	4273.4	8720.8
#4	104040.	10369.	4262.9	8714.2

Sample Name: ccb 7 Acquired: 4/3/2019 10:48:10 Type: QC  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0006	F .0006	.0004	.0004	.0001	-0.0001	.0005	.0002	.0001
Stddev	.0003	.0001	.0001	.0001	.0002	.0004	.0001	.0001	.0002
%RSD	48.52	9.500	20.07	26.72	147.8	298.9	21.28	65.66	121.9
#1	.0004	.0005	.0004	.0003	-0.0000	-0.0001	.0006	.0001	.0002
#2	.0004	.0006	.0004	.0005	.0004	.0002	.0006	.0003	-0.0001
#3	.0009	.0006	.0005	.0003	.0001	-0.0005	.0004	.0003	.0002

Check ? Chk Pass Chk Fail Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
High Limit  
Low Limit

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0006	.0004	.0006	.0005	-0.0004	.0018	-0.0001	.0009	.0143
Stddev	.0001	.0000	.0011	.0004	.0004	.0015	.0011	.0118	.0044
%RSD	18.60	8.126	190.1	70.16	112.0	86.77	799.2	1311.	30.89
#1	.0005	.0004	-0.0003	.0004	.0000	.0002	.0011	-.0127	.0187
#2	.0006	.0004	.0002	.0003	-0.0008	.0033	-0.0008	.0077	.0145
#3	.0007	.0004	.0018	.0009	-0.0003	.0018	-0.0007	.0077	.0098

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
High Limit  
Low Limit

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sr1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .0103	.0146	.0662	.0184	.0023	.0005	.0015	.0004	.0006
Stddev	.0029	.0232	.0261	.0054	.0009	.0002	.0006	.0006	.0002
%RSD	28.20	159.0	39.34	29.55	39.49	31.86	43.79	147.1	33.50
#1	.0069	-.0071	.0458	.0132	.0033	.0007	.0022	.0010	.0005
#2	.0122	.0039	.0574	.0181	.0023	.0003	.0011	.0002	.0004
#3	.0116	-.0406	.0955	.0240	.0014	.0006	.0010	-0.0001	.0008

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
High Limit  
Low Limit

7.3  
7

Sample Name: ccb 7 Acquired: 4/3/2019 10:48:10 Type: QC  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0004	.0013	.0004	.0004	-.0013	.0023	.0009
Stddev	.0003	.0005	.0001	.0023	.0007	.0005	.0010
%RSD	62.39	37.54	12.77	514.4	55.01	22.14	106.1
#1	.0006	.0017	.0004	.0030	-.0013	.0018	.0021
#2	.0001	.0007	.0005	-.0011	-.0006	.0022	.0005
#3	.0006	.0014	.0004	-.0006	-.0019	.0028	.0002

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
High Limit  
Low Limit

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	109480.	10401.	4398.8	9689.6
Stddev	117.	86.	15.3	28.9
%RSD	.10693	.82796	.34759	.29810
#1	109380.	10409.	4386.7	9663.2
#2	109600.	10483.	4393.6	9685.3
#3	109450.	10311.	4416.0	9720.5

Sample Name: cri Acquired: 4/3/2019 10:52:50 Type: QC  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2053	.0024	.0035	.0504	.0106	.0098	.0158	.0105	.0047
Stddev	.0002	.0000	.0001	.0002	.0004	.0004	.0004	.0004	.0002
%RSD	.1157	.9971	1.433	.3100	3.304	3.724	2.545	4.018	3.419
#1	.2056	.0024	.0035	.0503	.0108	.0102	.0162	.0110	.0048
#2	.2053	.0024	.0036	.0506	.0102	.0095	.0154	.0103	.0048
#3	.2051	.0024	.0035	.0503	.0108	.0098	.0159	.0103	.0045

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
Value Range

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0502	.0219	.0087	.0107	.0033	.0118	.0064	.2119	5.420
Stddev	.0015	.0002	.0007	.0013	.0004	.0012	.0007	.0070	.014
%RSD	3.030	.8780	7.527	12.25	11.55	10.51	10.97	3.315	.2520
#1	.0515	.0220	.0091	.0092	.0029	.0121	.0056	.2171	5.435
#2	.0485	.0217	.0080	.0111	.0037	.0129	.0068	.2039	5.418
#3	.0506	.0221	.0091	.0117	.0032	.0105	.0068	.2146	5.408

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
Value Range

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sr1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1168	5.430	5.197	5.240	.1074	.0217	.2137	.0110	.0105
Stddev	.0053	.052	.043	.004	.0009	.0003	.0009	.0003	.0000
%RSD	4.577	.9574	.8366	.0746	.7983	1.211	.4095	2.696	.3874
#1	.1115	5.383	5.182	5.245	.1082	.0219	.2141	.0111	.0105
#2	.1222	5.486	5.163	5.237	.1065	.0214	.2127	.0112	.0105
#3	.1167	5.422	5.246	5.239	.1076	.0218	.2144	.0107	.0105

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
Value Range

Sample Name: cri Acquired: 4/3/2019 10:52:50 Type: QC
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 8 columns: Elem, Units, W\_2079, Zr3391, S\_1820, Bi2230, Li6707, P\_1774. Rows include Avg, Stddev, %RSD and #1-3.

Check ? Value Range Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

Table with 4 columns: Int. Std. Units, Y\_3600, Y\_3710, Y\_2243, In2306. Rows include Avg, Stddev, %RSD and #1-3.

Table with 4 columns: #1, #2, #3. Rows include 107510, 112530, 109050 and 10249, 10221, 10220.

Sample Name: crid Acquired: 4/3/2019 10:58:14 Type: QC
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 9 columns: Elem, Units, Ba4554, Be3130, Cd2288, Co2286, Cr2677, Cu3247, Mn2576, Ni2316. Rows include Avg, Stddev, %RSD and #1-3.

Check ? Value Range Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Fail Chk Pass Chk Pass

Table with 9 columns: Elem, Units, Ag3280, V\_2924, Zn2062, As1890, Tl1908, Pb2203, Se1960, Sb2068. Rows include Avg, Stddev, %RSD and #1-3.

Check ? Value Range Chk Fail Chk Pass Chk Pass Chk Pass Chk Pass Chk Fail Chk Pass Chk Fail

Table with 9 columns: Elem, Units, Al3961, Ca3179, Fe2599, Mg2790, K\_7664, Na5895, B\_2089, Mo2020. Rows include Avg, Stddev, %RSD and #1-3.

Check ? Value Range Chk Pass Chk Pass None Chk Pass Chk Pass Chk Pass Chk Fail None

7.3 7

Sample Name: crid Acquired: 4/3/2019 10:58:14 Type: QC
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 8 columns: Elem, Units, Si2124, Sn1899, Sr4077, Ti3349, W\_2079, Zr3391, S\_1820, Bi2230. Rows include Avg, Stddev, %RSD and #1-3.

Check ? Value Range None None None None Chk Fail Chk Fail Chk Fail Chk Fail

Table with 4 columns: Elem, Units, Li6707, P\_1774. Rows include Avg, Stddev, %RSD and #1-3.

Check ? Value Range Chk Fail Chk Fail -30.00% -30.00%

Table with 4 columns: Int. Std. Units, Y\_3600, Y\_3710, Y\_2243, In2306. Rows include Avg, Stddev, %RSD and #1-3.

Table with 4 columns: #1, #2, #3. Rows include 108910, 109140, 109140 and 10253, 10287, 10272.

Sample Name: iccsa Acquired: 4/3/2019 11:03:41 Type: QC
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 10 columns: Elem, Units, Ba4554, Be3130, Cd2288, Co2286, Cr2677, Cu3247, Mn2576, Ni2316, Ag3280. Rows include Avg, Stddev, %RSD and #1-3.

Check ? High Limit Low Limit Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

Table with 10 columns: Elem, Units, V\_2924, Zn2062, As1890, Tl1908, Pb2203, Se1960, Sb2068, Al3961, Ca3179. Rows include Avg, Stddev, %RSD and #1-3.

Check ? High Limit Low Limit Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

Table with 10 columns: Elem, Units, Fe2599, Mg2790, K\_7664, Na5895, B\_2089, Mo2020, Si2124, Sn1899, Sr4077. Rows include Avg, Stddev, %RSD and #1-3.

Check ? High Limit Low Limit Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

Sample Name: icsa Acquired: 4/3/2019 11:03:41 Type: QC  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.011	0.101	-0.018	-0.012	0.096	-0.013	0.006
Stddev	.0003	.0006	.0001	.0031	.0016	.0010	.0007
%RSD	29.75	6.294	6.705	261.4	16.27	8.881	120.1

#1	-0.012	.0104	-0.019	-0.028	.0090	-0.108	.0015
#2	-0.007	.0094	-0.017	.0024	.0084	-0.107	.0002
#3	-0.013	.0105	-0.017	-0.032	.0113	-0.125	.0002

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
High Limit  
Low Limit

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	95095.	9919.5	3920.0	7620.7
Stddev	351.	89.0	14.1	19.4
%RSD	.36929	.89673	.35912	.25408

#1	94690.	9911.4	3926.8	7631.8
#2	95275.	10012.	3903.9	7598.4
#3	95319.	9834.9	3929.5	7632.0

Sample Name: ICSAB Acquired: 4/3/2019 11:08:56 Type: QC  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.108	.4993	1.031	4.899	4.897	5.058	4.992	.9855	1.042
Stddev	.0005	.0015	.009	.0044	.0008	.0011	.0002	.0090	.001
%RSD	.1006	.2924	.8811	.9028	.1621	.2185	.0413	.9088	.0476

#1	5.102	.4977	1.025	4.873	4.900	5.059	4.993	.9821	1.042
#2	5.110	.5002	1.041	4.950	4.904	5.046	4.993	.9957	1.041
#3	5.112	.5002	1.027	4.873	4.888	5.068	.4990	.9788	1.042

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
Value Range

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.950	.9534	1.079	.9993	.9748	1.062	1.075	518.6	392.7
Stddev	.0015	.0102	.009	.0069	.0078	.006	.008	.3	.7
%RSD	.3101	1.067	.8586	.6903	.7997	.5546	.7698	.0668	.1684

#1	4.964	.9480	1.077	1.001	.9724	1.058	1.071	518.2	392.0
#2	4.952	.9651	1.090	1.005	.9835	1.069	1.085	518.8	392.8
#3	4.934	.9471	1.072	.9918	.9685	1.060	1.070	518.8	393.3

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
Value Range

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	191.5	509.5	-4646	0.122	4.862	4.910	5.304	.4639	.5649
Stddev	.6	2.2	.0185	.0085	.0055	.0036	.0049	.0052	.0017
%RSD	.3324	.4414	3.991	69.69	1.124	.7408	.9262	1.115	.3063

#1	190.8	507.0	-4852	.0066	4.825	4.894	.5295	.4616	.5630
#2	191.8	510.3	-4593	.0080	4.924	4.952	.5357	.4698	.5664
#3	191.9	511.3	-4493	.0220	4.835	4.885	.5260	.4603	.5653

Check ? Chk Pass Chk Pass None None Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
Value Range

7.3  
7

Sample Name: ICSAB Acquired: 4/3/2019 11:08:56 Type: QC  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.954	4.834	5.202	4.798	4.986	5.259	5.125
Stddev	.0003	.0038	.0008	.0052	.0041	.0001	.0043
%RSD	.0677	.7942	.1514	1.075	.8171	.0145	.8380

#1	4.957	4.819	5.211	4.749	4.962	5.258	5.098
#2	4.954	4.877	5.195	4.851	5.033	5.259	5.174
#3	4.950	4.804	5.201	4.793	4.962	5.260	5.102

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
Value Range

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	94942.	9894.4	3919.0	7626.1
Stddev	92.	28.8	32.8	56.7
%RSD	.09689	.29084	.83615	.74382

#1	94999.	9911.6	3940.9	7659.2
#2	94836.	9910.5	3881.4	7560.6
#3	94992.	9861.2	3934.8	7658.4

Sample Name: hstd 7 Acquired: 4/3/2019 11:13:57 Type: QC  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.101	8.142	7.818	7.923	8.221	8.208	7.984	7.899	5.947
Stddev	.011	.023	.112	.080	.012	.017	.027	.079	.0024
%RSD	.1341	.2879	1.431	1.014	.1440	.2035	.3376	1.004	.4084

#1	8.089	8.123	7.690	7.830	8.233	8.205	8.009	7.808	5.951
#2	8.106	8.135	7.872	7.961	8.219	8.227	7.956	7.942	5.969
#3	8.109	8.168	7.894	7.977	8.210	8.194	7.987	7.948	5.921

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
Value Range

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.165	8.199	7.900	8.194	8.024	7.963	8.079	.2243	-0.534
Stddev	.011	.082	.104	.109	.075	.099	.104	.0189	.0171
%RSD	.1299	1.001	1.321	1.327	.9380	1.248	1.283	8.415	32.02

#1	8.175	8.105	7.781	8.073	7.937	7.849	7.961	.2450	-0.356
#2	8.153	8.250	7.945	8.222	8.058	8.006	8.125	.2198	-0.549
#3	8.166	8.243	7.974	8.285	8.075	8.033	8.152	.2081	-0.696

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass None None  
Value Range

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	0.689	0.633	2.013	0.628	7.991	8.165	25.27	8.336	8.027
Stddev	.0112	.0449	.0105	.0086	.097	.101	.32	.106	.061
%RSD	16.29	70.94	5.237	13.67	1.215	1.240	1.279	1.277	.7551

#1	.0818	.0983	.2134	.0544	7.879	8.049	24.90	8.214	8.048
#2	.0634	.0127	.1954	.0715	8.039	8.218	25.41	8.385	7.959
#3	.0615	.0789	.1950	.0624	8.055	8.229	25.50	8.409	8.074

Check ? None None None None Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
Value Range

Sample Name: hstd 7 Acquired: 4/3/2019 11:13:57 Type: QC  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.147	8.319	7.927	96.62	7.856	7.776	7.888
Stddev	.004	.100	.029	1.50	.106	.011	.122
%RSD	.0523	1.197	.3668	1.556	1.344	.1364	1.543
#1	8.152	8.204	7.961	94.94	7.735	7.765	7.751
#2	8.146	8.374	7.911	97.06	7.903	7.777	7.930
#3	8.144	8.379	7.910	97.85	7.930	7.786	7.983
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value Range							
Int. Std.	Y_3600	Y_3710	Y_2243	In2306			
Units	Cts/S	Cts/S	Cts/S	Cts/S			
Avg	106410.	10389.	4334.9	9394.8			
Stddev	262.	64.	44.2	79.8			
%RSD	.24664	.61865	1.0189	.84919			
#1	106160.	10341.	4385.9	9486.9			
#2	106680.	10462.	4309.0	9349.4			
#3	106390.	10363.	4309.9	9348.0			

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Sample Name: hstd Acquired: 4/3/2019 11:19:25 Type: QC  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0020	.0017	.0005	-.0005	.0015	.0052	-.0007	.0013	.0152
Stddev	.0003	.0002	.0002	.0002	.0007	.0003	.0000	.0005	.0001
%RSD	13.92	9.152	45.24	43.05	44.57	5.958	6.166	39.99	.6273
#1	.0023	.0018	.0006	-.0004	.0012	.0049	-.0007	.0017	.0152
#2	.0017	.0018	.0007	-.0004	.0023	.0054	-.0007	.0016	.0151
#3	.0018	.0015	.0003	-.0008	.0011	.0054	-.0006	.0007	.0152
Check ?	None	None	None	None	None	None	None	None	None
Value Range									
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0023	.0003	.0011	.0010	-.0005	.0002	.0026	.306.5	197.5
Stddev	.0006	.0001	.0013	.0022	.0014	.0010	.0016	.3	.4
%RSD	24.83	29.88	118.5	221.8	252.5	439.2	62.86	.1126	.1847
#1	.0027	.0003	.0014	.0029	.0007	.0000	.0031	306.8	197.6
#2	.0017	.0004	.0022	-.0014	-.0020	.0013	.0008	306.1	197.0
#3	.0026	.0002	-.0003	.0016	-.0003	-.0007	.0039	306.7	197.7
Check ?	None	None	None	None	None	None	None	Chk Pass	Chk Pass
Value Range									
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	198.7	305.0	201.9	203.1	-.0004	.0010	-.0043	-.0001	-.0006
Stddev	.3	.7	.6	.4	.0005	.0002	.0023	.0008	.0001
%RSD	.1561	.2423	.2727	.1881	120.7	18.33	52.37	555.4	15.17
#1	199.0	305.5	202.4	203.3	.0000	.0012	-.0017	-.0010	-.0005
#2	198.4	304.2	201.3	202.7	-.0004	.0008	-.0054	.0002	-.0005
#3	198.8	305.4	201.9	203.3	-.0010	.0010	-.0058	.0004	-.0007
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	None	None
Value Range									

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7.3  
7

Sample Name: hstd Acquired: 4/3/2019 11:19:25 Type: QC  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001	.0082	-.0003	.0111	.0105	.0110	.0050
Stddev	.0007	.0004	.0001	.0038	.0009	.0011	.0006
%RSD	1229.	4.322	37.42	34.14	8.580	10.36	11.81
#1	.0004	.0078	-.0002	.0087	.0108	.0121	.0048
#2	.0002	.0083	-.0003	.0154	.0095	.0098	.0046
#3	-.0008	.0085	-.0004	.0091	.0112	.0111	.0057
Check ?	None	None	None	None	None	None	None
Value Range							
Int. Std.	Y_3600	Y_3710	Y_2243	In2306			
Units	Cts/S	Cts/S	Cts/S	Cts/S			
Avg	96003.	9799.1	3929.0	7648.0			
Stddev	171.	39.9	7.4	19.5			
%RSD	.17764	.40751	.18724	.25554			
#1	95893.	9755.7	3921.0	7630.1			
#2	96200.	9834.4	3930.7	7645.0			
#3	95917.	9807.2	3935.4	7668.8			

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Sample Name: feconf Acquired: 4/3/2019 11:24:44 Type: Unk  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0011	.0010	.0001	-.0006	.0007	.0034	-.0006	.0006	.0018
Stddev	.0004	.0002	.0003	.0003	.0003	.0021	.0010	.0002	.0040
%RSD	37.96	23.30	403.7	58.79	45.33	61.99	175.6	30.22	229.4
#1	.0016	.0012	.0004	-.0004	.0010	.0058	.0006	.0006	.0064
#2	.0010	.0008	-.0001	-.0004	.0004	.0018	-.0011	.0008	-.0010
#3	.0008	.0010	-.0001	-.0010	.0008	.0027	-.0013	.0005	-.0001
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0027	-.0005	.0023	.0015	-.0020	.0013	.0001	.0401	.0108
Stddev	.0001	.0002	.0007	.0006	.0010	.0023	.0017	.0128	.0059
%RSD	3.357	34.42	30.29	42.12	49.40	174.7	1362.	31.99	54.47
#1	.0028	-.0006	.0027	.0021	-.0031	.0039	.0010	.0417	.0172
#2	.0026	-.0005	.0015	.0015	-.0015	.0001	.0012	.0520	.0095
#3	.0028	-.0003	.0027	.0009	-.0013	-.0001	-.0018	.0265	.0057
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	214.8	.0547	.2015	.0397	-.0001	.0011	-.0050	.0002	.0000
Stddev	14.8	.0110	.0313	.0039	.0006	.0004	.0005	.0008	.0002
%RSD	6.882	20.13	15.54	9.812	493.7	36.51	9.686	459.1	1006.
#1	231.9	.0511	.2325	.0439	-.0005	.0015	-.0055	-.0006	.0002
#2	205.6	.0460	.2020	.0362	-.0005	.0008	-.0046	.0001	-.0001
#3	207.0	.0671	.1699	.0389	.0006	.0009	-.0051	.0010	-.0001
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	.0004	.0024	-.0008	.0029	.0104	.0033	.0034		
Stddev	.0000	.0011	.0010	.0009	.0024	.0008	.0003		
%RSD	5.988	45.79	125.0	31.61	22.91	22.70	8.274		
#1	.0003	.0014	.0004	.0023	.0081	.0033	.0033		
#2	.0004	.0023	-.0013	.0024	.0129	.0026	.0031		
#3	.0004	.0036	-.0015	.0039	.0103	.0041	.0036		

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Sample Name: feconf Acquired: 4/3/2019 11:24:44 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	107710	9961.3	4324.9	9537.1
Stddev	683	537.8	5.6	7.8
%RSD	.63404	5.3987	.12939	.08166
#1	107560.	9343.2	4330.2	9535.3
#2	107110.	10323.	4319.1	9530.4
#3	108450.	10218.	4325.3	9545.7

Sample Name: crconf Acquired: 4/3/2019 11:30:11 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0006	.0002	.0002	.0011	9.962	-0.003	-0.001	.0002	.0003
Stddev	.0002	.0001	.0002	.0004	.023	.0001	.0000	.0001	.0004
%RSD	32.51	53.00	100.5	31.10	.2333	51.11	33.11	55.81	143.0
#1	.0008	.0003	.0001	.0013	9.977	-0.004	-0.000	.0001	.0007
#2	.0004	.0001	.0004	.0007	9.975	-0.001	-0.000	.0003	.0002
#3	.0006	.0001	.0001	.0014	9.935	-0.004	-0.001	.0001	.0001
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0045	.0000	-0.001	-0.006	.0005	-0.007	-0.001	.0088	.0075
Stddev	.0000	.0001	.0005	.0003	.0004	.0005	.0007	.0051	.0014
%RSD	.6524	1782.	550.8	52.94	75.64	81.49	746.3	58.15	18.42
#1	.0045	-0.001	-0.003	-0.002	.0001	-0.011	-0.008	.0029	.0085
#2	.0045	.0002	.0005	-0.008	.0006	-0.008	.0006	.0116	.0059
#3	.0044	-0.001	-0.004	-0.007	.0009	-0.001	-0.001	.0118	.0081
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sr1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0287	.0317	.0178	.0104	.0008	.0009	.0036	-0.013	.0002
Stddev	.0078	.0355	.0184	.0073	.0001	.0002	.0001	.0003	.0001
%RSD	27.19	111.8	103.7	69.76	18.36	18.15	4.152	24.07	55.88
#1	.0375	.0691	.0333	.0053	.0006	.0008	.0035	-0.010	.0003
#2	.0225	-0.014	-0.026	.0188	.0008	.0008	.0037	-0.017	.0002
#3	.0262	.0274	.0226	.0072	.0009	.0011	.0035	-0.013	.0001
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	-0.004	.0043	.0059	.0030	-0.0032	.0026	-0.0005		
Stddev	.0002	.0004	.0001	.0009	.0016	.0015	.0005		
%RSD	63.32	9.570	9.502	30.58	50.71	58.90	99.78		
#1	-0.007	.0040	.0059	.0032	-0.049	.0030	-0.005		
#2	-0.003	.0041	.0059	.0020	-0.031	.0009	-0.010		
#3	-0.002	.0047	.0058	.0038	-0.017	.0038	.0000		

7.3  
7

Sample Name: crconf Acquired: 4/3/2019 11:30:11 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	108680.	10221.	4324.9	9671.2
Stddev	428.	47.	3.1	4.7
%RSD	.39387	.46135	.07092	.04876
#1	108620.	10168.	4322.8	9676.0
#2	108280.	10241.	4328.5	9670.8
#3	109130.	10256.	4323.5	9666.6

Sample Name: asconf Acquired: 4/3/2019 11:35:38 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001	.0001	-0.006	-0.007	.0002	-0.004	-0.000	-0.001	-0.004
Stddev	.0001	.0001	.0001	.0003	.0003	.0001	.0001	.0003	.0002
%RSD	112.0	100.0	13.38	34.70	188.9	30.59	1452.	255.0	41.65
#1	.0001	-0.000	-0.006	-0.010	.0003	-0.005	.0001	.0001	-0.006
#2	.0000	.0001	-0.005	-0.005	.0003	-0.005	-0.000	.0000	-0.004
#3	.0000	.0001	-0.005	-0.008	-0.002	-0.003	-0.001	-0.004	-0.003
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001	.0001	5.368	.0006	-0.0005	-0.002	.0002	.0028	.0012
Stddev	.0004	.0001	.012	.0010	.0004	.0008	.0004	.0049	.0035
%RSD	283.3	54.04	.2211	171.7	85.37	353.2	240.4	174.2	284.1
#1	-0.002	.0001	5.355	.0014	-0.000	-0.009	-0.002	.0080	.0038
#2	.0005	.0002	5.371	.0008	-0.006	.0007	.0005	.0021	.0027
#3	.0002	.0001	5.378	-0.005	-0.009	-0.005	.0002	-0.017	-0.028
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sr1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0112	.0184	.0326	.0069	.0009	-0.000	.0076	-0.002	-0.001
Stddev	.0044	.0302	.0149	.0063	.0002	.0001	.0028	.0002	.0001
%RSD	39.45	164.0	45.62	91.64	19.39	365.2	37.01	111.7	126.3
#1	.0062	-0.132	.0350	.0136	.0009	-0.002	.0060	-0.004	-0.001
#2	.0144	.0470	.0167	.0010	.0007	.0000	.0109	-0.001	-0.001
#3	.0131	.0214	.0462	.0061	.0010	.0001	.0060	-0.000	.0000
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	-0.002	.0006	.0002	-0.006	-0.011	.0014	.0008		
Stddev	.0003	.0005	.0001	.0037	.0014	.0002	.0008		
%RSD	137.2	85.76	44.90	601.3	126.2	13.79	90.88		
#1	-0.002	.0010	.0002	.0025	.0005	.0015	-0.000		
#2	-0.005	.0008	.0003	.0003	-0.023	.0012	.0015		
#3	.0001	.0000	.0001	-0.047	-0.015	.0015	.0011		

Sample Name: asconf Acquired: 4/3/2019 11:35:38 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	110000.	10309.	4398.8	9658.4
Stddev	378.	89.	10.0	14.4
%RSD	.34374	.86597	.22718	.14879
#1	110340.	10210.	4408.5	9669.7
#2	109600.	10336.	4399.4	9663.2
#3	110060.	10382.	4388.5	9642.2

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Sample Name: ccv Acquired: 4/3/2019 11:41:06 Type: QC  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.989	2.013	2.007	2.000	2.009	1.953	2.021	2.009	2.451
Stddev	.005	.002	.008	.009	.003	.004	.003	.007	.0004
%RSD	.2434	.0955	.4144	.4543	.1452	.2054	.1652	.3573	.1624
#1	1.989	2.014	2.016	2.011	2.007	1.950	2.020	2.017	2.448
#2	1.985	2.011	2.005	1.995	2.007	1.950	2.019	2.005	2.450
#3	1.994	2.015	2.000	1.995	2.012	1.957	2.025	2.005	2.456

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
 Value Range

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.980	2.033	2.011	2.075	2.025	1.992	2.025	39.44	40.22
Stddev	.002	.012	.009	.007	.009	.014	.010	.10	.04
%RSD	.1235	.5650	.4382	.3580	.4674	.7126	.4972	.2606	.1068
#1	1.981	2.046	2.018	2.080	2.035	2.004	2.035	39.47	40.26
#2	1.978	2.026	2.013	2.079	2.022	1.996	2.026	39.32	40.22
#3	1.982	2.025	2.001	2.067	2.017	1.976	2.015	39.52	40.17

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
 Value Range

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	40.55	40.23	39.79	39.58	2.043	2.038	5.082	2.062	1.992
Stddev	.10	.09	.07	.04	.010	.008	.023	.014	.005
%RSD	.2573	.2236	.1882	.1101	.4767	.4111	.4581	.6846	.2565
#1	40.66	40.34	39.87	39.61	2.052	2.047	5.104	2.076	1.993
#2	40.45	40.16	39.72	39.53	2.043	2.037	5.084	2.062	1.986
#3	40.56	40.20	39.79	39.59	2.033	2.030	5.057	2.048	1.996

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
 Value Range

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7.3  
7

Sample Name: ccv Acquired: 4/3/2019 11:41:06 Type: QC  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.996	2.006	1.995	2.004	2.017	1.999	2.006
Stddev	.002	.010	.003	.014	.010	.002	.011
%RSD	.1072	.5062	.1412	.6900	.4737	.1192	.5535
#1	1.995	2.017	1.995	2.010	2.026	2.000	2.013
#2	1.995	2.004	1.992	2.015	2.018	1.996	2.013
#3	1.999	1.997	1.998	1.989	2.007	2.000	1.994

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
 Value Range

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	103960.	10113.	4256.0	8685.0
Stddev	247.	18.	15.7	29.4
%RSD	.23791	.18133	.36938	.33811
#1	104060.	10097.	4237.9	8652.7
#2	104150.	10133.	4265.4	8710.1
#3	103680.	10107.	4264.8	8692.2

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Sample Name: ccb Acquired: 4/3/2019 11:46:07 Type: QC  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0008	F_0008	.0003	.0002	.0007	.0002	.0007	.0002	.0005
Stddev	.0004	.0001	.0002	.0002	.0004	.0003	.0000	.0002	.0004
%RSD	50.17	18.13	53.34	89.75	62.37	129.8	2.378	105.9	82.88
#1	.0004	.0009	.0005	.0003	.0009	.0003	.0007	.0005	.0007
#2	.0012	.0007	.0002	.0004	.0009	.0004	.0007	.0001	.0009
#3	.0009	.0006	.0002	.0000	.0002	.0001	.0006	.0001	.0000

Check ? Chk Pass Chk Fail Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
 High Limit .0002  
 Low Limit -.0002

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0008	.0004	.0004	.0003	.0000	.0001	.0001	.0127	.0207
Stddev	.0004	.0000	.0009	.0005	.0006	.0008	.0012	.0006	.0005
%RSD	46.46	8.613	214.5	191.5	2212.	1419.	1771.	4.916	2.184
#1	.0012	.0004	.0014	.0002	.0007	.0005	.0013	0.133	.0203
#2	.0007	.0003	.0002	.0009	.0004	.0008	.0008	0.121	.0212
#3	.0005	.0003	.0000	.0001	.0002	.0005	.0007	0.127	.0206

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
 High Limit  
 Low Limit

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F_0152	.0129	.0622	.0183	.0016	.0003	.0013	.0006	.0008
Stddev	.0030	.0192	.0334	.0060	.0011	.0001	.0004	.0005	.0001
%RSD	20.00	148.5	53.78	32.77	66.71	40.36	27.73	86.51	15.88
#1	.0167	.0233	.0979	.0234	.0013	.0005	.0010	.0011	.0010
#2	.0117	.0092	.0570	.0117	.0007	.0003	.0017	.0004	.0008
#3	.0172	.0247	.0316	.0199	.0027	.0002	.0013	.0002	.0007

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

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Sample Name: ccb Acquired: 4/3/2019 11:46:07 Type: QC  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0004	-0.001	.0007	-0.0008	-0.0005	.0027	.0022
Stddev	.0002	.0005	.0001	.0028	.0001	.0010	.0001
%RSD	55.50	390.6	17.68	337.1	23.29	39.38	6.129

#1	.0001	.0004	.0007	-0.0015	-0.0004	.0018	.0021
#2	.0005	-0.0006	.0008	.0023	-0.0006	.0038	.0022
#3	.0005	-0.0002	.0005	-0.0033	-0.0005	.0024	.0024

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
High Limit  
Low Limit

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	109760.	10241.	4431.4	9742.6
Stddev	57.	55.	32.0	70.4
%RSD	.05194	.54156	.72291	.72285

#1	109690.	10181.	4409.2	9694.2
#2	109770.	10252.	4468.2	9823.4
#3	109800.	10291.	4417.0	9710.2

Sample Name: mp13671-mb1 Acquired: 4/3/2019 11:51:36 Type: Unk  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002	-0.0001	.0004	-0.000	.0006	.0001	.0004	-0.0002	-0.0005
Stddev	.0002	.0001	.0001	.0001	.0002	.0003	.0001	.0002	.0004
%RSD	128.4	100.5	19.75	121.9	40.75	516.9	18.76	123.5	75.54

#1	-0.001	-0.000	.0003	-0.000	.0008	-0.002	.0004	-0.002	-0.001
#2	.0002	-0.001	.0003	-0.001	.0005	.0004	.0005	-0.004	-0.008
#3	.0003	-0.000	.0005	-0.001	.0004	.0000	.0003	.0001	-0.007

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.000	.0017	-0.0008	-0.012	-0.001	.0004	-0.0004	-0.0052	.0499
Stddev	.0004	.0001	.0003	.0002	.0010	.0016	.0001	.0022	.0084
%RSD	3313.	3.000	36.24	15.77	914.4	438.3	22.43	41.54	16.91

#1	.0002	.0017	-0.011	-0.014	.0011	.0012	-0.004	-0.037	.0425
#2	-0.004	.0017	-0.007	-0.010	-0.008	.0014	-0.005	-0.077	.0480
#3	.0002	.0016	-0.005	-0.012	-0.006	-0.015	-0.003	-0.042	.0591

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0214	.0155	.0132	.0401	.0015	.0002	.0088	-0.0007	.0001
Stddev	.0041	.0243	.0156	.0076	.0002	.0001	.0007	.0004	.0001
%RSD	19.28	157.3	117.8	18.86	16.71	59.22	8.186	49.88	59.28

#1	.0247	-0.124	.0299	.0314	.0013	.0001	.0082	-0.008	.0002
#2	.0227	.0323	.0107	.0454	.0018	.0003	.0087	-0.010	.0000
#3	.0168	.0266	-0.009	.0435	.0014	.0003	.0096	-0.003	.0001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.003	.0009	.0003	.0402	-0.023	.0000	.0038
Stddev	.0002	.0009	.0001	.0026	.0007	.0011	.0010
%RSD	78.10	99.67	28.77	6.550	32.25	558.2	25.98

#1	-0.005	.0000	.0003	.0376	-0.030	-0.011	.0026
#2	-0.004	.0009	.0003	.0429	-0.022	.0012	.0043
#3	-0.000	.0018	.0002	.0400	-0.016	.0000	.0044

7.3  
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Sample Name: mp13671-mb1 Acquired: 4/3/2019 11:51:36 Type: Unk  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	110250.	10504.	4417.7	9731.7
Stddev	451.	25.	13.9	25.8
%RSD	.40878	.24108	.31539	.26547

#1	110360.	10491.	4407.0	9713.6
#2	109750.	10533.	4433.5	9761.3
#3	110630.	10487.	4412.8	9720.1

Sample Name: mp13671-mb2 Acquired: 4/3/2019 11:57:02 Type: Unk  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000	.0000	.0002	-0.002	.0006	.0002	.0004	.0001	-0.0008
Stddev	.0002	.0001	.0002	.0003	.0001	.0002	.0000	.0001	.0002
%RSD	490.7	128.1	133.8	118.0	12.23	69.42	6.909	100.1	21.24

#1	-0.002	.0000	.0000	.0000	.0006	.0004	.0005	.0002	-0.010
#2	.0000	.0001	.0004	-0.002	.0005	.0002	.0005	-0.000	-0.006
#3	.0003	-0.000	.0001	-0.005	.0006	.0001	.0004	.0002	-0.008

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0003	.0016	-0.010	-0.002	-0.005	-0.001	.0001	.0065	.0123
Stddev	.0003	.0000	.0009	.0004	.0010	.0019	.0010	.0142	.0014
%RSD	96.12	1.293	91.27	227.3	203.2	253.2	992.3	219.1	11.14

#1	.0006	.0016	-0.004	-0.003	.0001	.0015	.0013	.0206	.0136
#2	.0000	.0016	-0.020	-0.005	-0.017	-0.022	-0.004	-0.079	.0108
#3	.0003	.0017	-0.006	.0003	.0000	.0005	-0.006	.0067	.0125

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0257	-0.169	.0069	.0112	.0005	.0001	.0088	-0.0010	.0001
Stddev	.0025	.0173	.0172	.0025	.0003	.0001	.0004	.0003	.0001
%RSD	9.718	102.5	249.3	22.26	70.31	88.92	4.739	28.48	47.68

#1	.0250	-0.172	.0260	.0126	.0007	.0001	.0088	-0.013	.0001
#2	.0285	.0006	.0021	.0083	.0001	.0001	.0092	-0.007	.0002
#3	.0236	-0.341	-0.074	.0128	.0006	.0000	.0084	-0.010	.0002

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.000	.0005	.0004	.0053	-0.022	.0003	.0035
Stddev	.0001	.0003	.0002	.0017	.0005	.0010	.0009
%RSD	346.2	48.03	45.15	32.63	21.77	314.7	25.45

#1	-0.001	.0008	.0004	.0071	-0.018	-0.002	.0043
#2	.0001	.0005	.0006	.0036	-0.028	-0.003	.0036
#3	.0002	.0003	.0002	.0052	-0.021	.0015	.0026



Sample Name: mp13671-mb2 Acquired: 4/3/2019 11:57:02 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	110920.	10572.	4393.8	9673.8
Stddev	449.	64.	2.8	13.1
%RSD	.40503	.60837	.06288	.13498

#1	110590.	10645.	4390.7	9667.7
#2	111430.	10523.	4394.6	9664.8
#3	110750.	10549.	4396.0	9688.7

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Sample Name: mp13671-b1 Acquired: 4/3/2019 12:02:28 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>1.964</b>	<b>1.994</b>	<b>1.964</b>	<b>1.960</b>	<b>1.963</b>	<b>1.933</b>	<b>1.984</b>	<b>1.962</b>
Stddev	.002	.003	.003	.004	.004	.002	.004	.004
%RSD	.1081	.1570	.1306	.2024	.1955	.1096	.1849	.1958

#1	1.967	1.997	1.967	1.961	1.960	1.934	1.981	1.964
#2	1.964	1.991	1.965	1.962	1.961	1.931	1.982	1.965
#3	1.962	1.993	1.962	1.955	1.967	1.935	1.988	1.958

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>2.470</b>	<b>1.946</b>	<b>1.994</b>	<b>1.977</b>	<b>2.052</b>	<b>1.985</b>	<b>1.950</b>	<b>2.019</b>
Stddev	.0008	.002	.004	.004	.004	.004	.006	.005
%RSD	.3050	.1050	.2140	.2196	.2158	.1761	.3292	.2642

#1	.2463	1.944	1.995	1.981	2.054	1.983	1.953	2.019
#2	.2468	1.945	1.998	1.977	2.055	1.989	1.954	2.024
#3	.2478	1.948	1.989	1.972	2.047	1.983	1.942	2.013

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>24.94</b>	<b>25.42</b>	<b>25.88</b>	<b>25.26</b>	<b>25.17</b>	<b>25.09</b>	<b>1.974</b>	<b>2.035</b>
Stddev	.03	.07	.04	.12	.01	.04	.004	.003
%RSD	.1231	.2635	.1491	.4616	.0456	.1486	.1823	.1338

#1	24.97	25.50	25.93	25.32	25.16	25.13	1.977	2.037
#2	24.94	25.37	25.86	25.33	25.18	25.07	1.970	2.035
#3	24.91	25.40	25.87	25.12	25.17	25.07	1.974	2.032

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.0909</b>	<b>2.063</b>	<b>1.965</b>	<b>1.967</b>	<b>1.928</b>	<b>1.967</b>	<b>F-.0860</b>	<b>-0.005</b>
Stddev	.0015	.011	.003	.004	.002	.004	.0014	.0017
%RSD	1.664	.5296	.1284	.2292	.1193	.1822	1.607	337.3

#1	.0895	2.057	1.968	1.965	1.926	1.965	-.0848	-.0002
#2	.0925	2.057	1.965	1.965	1.930	1.965	-.0858	.0011
#3	.0908	2.076	1.963	1.973	1.927	1.971	-.0875	-.0024

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Sample Name: mp13671-b1 Acquired: 4/3/2019 12:02:28 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Li6707	P_1774
Units	ppm	ppm
Avg	<b>.0011</b>	<b>1.966</b>
Stddev	.0005	.002
%RSD	41.68	.1242

#1	.0006	1.964
#2	.0012	1.966
#3	.0015	1.969

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>106490.</b>	<b>10416.</b>	<b>4293.2</b>	<b>8898.6</b>
Stddev	323.	8.	4.3	8.3
%RSD	.30295	.07267	.10061	.09310

#1	106640.	10407.	4294.9	8905.1
#2	106700.	10421.	4288.3	8889.3
#3	106120.	10420.	4296.4	8901.4

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Sample Name: mp13671-b2 Acquired: 4/3/2019 12:07:29 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>1.956</b>	<b>1.981</b>	<b>1.947</b>	<b>1.946</b>	<b>1.998</b>	<b>1.951</b>	<b>2.001</b>	<b>1.944</b>
Stddev	.007	.010	.036	.032	.030	.033	.032	.034
%RSD	.3446	.5042	1.852	1.632	1.529	1.700	1.616	1.750

#1	1.958	1.983	1.906	1.909	1.982	1.931	1.985	1.905
#2	1.961	1.989	1.968	1.966	1.979	1.932	1.980	1.964
#3	1.948	1.970	1.968	1.963	2.033	1.989	2.039	1.963

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>2.603</b>	<b>1.956</b>	<b>1.980</b>	<b>1.999</b>	<b>2.029</b>	<b>1.966</b>	<b>1.927</b>	<b>2.033</b>
Stddev	.0032	.032	.035	.035	.029	.034	.030	.038
%RSD	1.215	1.632	1.744	1.724	1.451	1.734	1.537	1.867

#1	2.581	1.940	1.940	1.959	1.995	1.927	1.893	1.989
#2	2.587	1.936	2.001	2.019	2.042	1.987	1.944	2.059
#3	2.639	1.993	1.999	2.018	2.049	1.985	1.945	2.050

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>25.70</b>	<b>26.30</b>	<b>26.54</b>	<b>25.99</b>	<b>25.92</b>	<b>25.85</b>	<b>1.948</b>	<b>2.061</b>
Stddev	.09	.09	.11	.16	.16	.13	.034	.036
%RSD	.3558	.3568	.4189	.5993	.6144	.5074	1.718	1.750

#1	25.80	26.37	26.53	25.88	26.00	25.89	1.910	2.019
#2	25.69	26.35	26.66	26.17	26.01	25.95	1.965	2.082
#3	25.62	26.20	26.43	25.92	25.73	25.70	1.970	2.081

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.0996</b>	<b>2.077</b>	<b>1.950</b>	<b>2.027</b>	<b>1.811</b>	<b>2.026</b>	<b>F-.0798</b>	<b>-0.000</b>
Stddev	.0026	.037	.009	.032	.043	.032	.0030	.0010
%RSD	2.615	1.808	.4610	1.567	2.374	1.571	3.743	2294.

#1	.0966	2.034	1.953	2.011	1.762	2.008	-.0771	-.0011
#2	.1014	2.098	1.957	2.007	1.831	2.006	-.0830	-.0000
#3	.1008	2.099	1.940	2.064	1.840	2.062	-.0792	.0010

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Sample Name: mp13671-b2 Acquired: 4/3/2019 12:07:29 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Li6707	P_1774		
Units	ppm	ppm		
Avg	<b>0.015</b>	<b>1.942</b>		
Stddev	.0010	.033		
%RSD	63.61	1.678		
#1	.0004	1.906		
#2	.0022	1.952		
#3	.0019	1.968		
Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	105590.	10395.	4329.6	8977.9
Stddev	1331.	36.	67.9	129.1
%RSD	1.2606	.34747	1.5678	1.4381
#1	106080.	10401.	4408.0	9126.9
#2	106600.	10356.	4289.6	8905.5
#3	104080.	10427.	4291.2	8901.2

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Sample Name: mp13671-s1 Acquired: 4/3/2019 12:12:30 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>2.029</b>	<b>1.946</b>	<b>1.990</b>	<b>1.942</b>	<b>1.928</b>	<b>1.919</b>	<b>2.849</b>	<b>1.940</b>	<b>2.498</b>
Stddev	.002	.002	.001	.002	.003	.003	.003	.002	.0002
%RSD	.1144	.1074	.0489	.1056	.1358	.1706	.1132	.0800	.0956
#1	2.026	1.945	1.991	1.944	1.931	1.917	2.852	1.939	2.501
#2	2.030	1.944	1.989	1.941	1.926	1.917	2.846	1.942	2.496
#3	2.030	1.948	1.989	1.940	1.929	1.922	2.849	1.940	2.498
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>1.922</b>	<b>1.953</b>	<b>2.009</b>	<b>1.961</b>	<b>1.947</b>	<b>1.975</b>	<b>2.041</b>	<b>25.77</b>	<b>170.9</b>
Stddev	.002	.004	.005	.004	.002	.003	.005	.02	.0
%RSD	.0832	.2007	.2752	.1953	.1244	.1540	.2406	.0760	.0115
#1	1.923	1.953	2.015	1.963	1.947	1.978	2.047	25.75	171.0
#2	1.924	1.957	2.004	1.956	1.950	1.972	2.041	25.78	170.9
#3	1.920	1.949	2.008	1.963	1.945	1.975	2.037	25.77	170.9
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>27.17</b>	<b>50.98</b>	<b>33.07</b>	<b>105.3</b>	<b>2.735</b>	<b>2.052</b>	<b>8.545</b>	<b>1.997</b>	<b>2.644</b>
Stddev	.03	.08	.04	.1	.004	.002	.011	.002	.004
%RSD	.1249	.1650	.1266	.1251	.1371	.0725	.1278	.1202	.1343
#1	27.14	50.97	33.07	105.1	2.739	2.054	8.558	1.998	2.640
#2	27.17	50.90	33.11	105.3	2.732	2.051	8.540	1.999	2.646
#3	27.21	51.07	33.02	105.4	2.734	2.051	8.538	1.994	2.645
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	<b>1.965</b>	<b>1.928</b>	<b>1.946</b>	<b>90.76</b>	<b>-0.005</b>	<b>-0.003</b>	<b>2.067</b>		
Stddev	.002	.005	.002	.21	.0008	.0001	.004		
%RSD	.1101	.2814	.1226	.2339	167.2	37.14	.1985		
#1	1.963	1.930	1.944	90.68	-0.008	-0.003	2.069		
#2	1.967	1.931	1.949	90.61	-0.010	-0.002	2.062		
#3	1.963	1.922	1.947	91.01	.0004	-0.005	2.070		

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Sample Name: mp13671-s1 Acquired: 4/3/2019 12:12:30 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	101390.	10175.	4061.5	8269.2
Stddev	249.	29.	7.7	9.5
%RSD	.24560	.28539	.18874	.11495
#1	101170.	10172.	4056.7	8261.4
#2	101660.	10205.	4057.4	8266.5
#3	101360.	10147.	4070.3	8279.8

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Sample Name: mp13671-s2 Acquired: 4/3/2019 12:17:29 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>2.025</b>	<b>1.939</b>	<b>1.971</b>	<b>1.920</b>	<b>1.893</b>	<b>1.906</b>	<b>2.847</b>	<b>1.924</b>	<b>2.497</b>
Stddev	.004	.003	.008	.006	.003	.004	.004	.004	.0007
%RSD	.1826	.1711	.4202	.2976	.1748	.2173	.1522	.1889	.2603
#1	2.022	1.937	1.976	1.926	1.889	1.909	2.843	1.928	2.490
#2	2.023	1.938	1.976	1.918	1.895	1.902	2.846	1.923	2.498
#3	2.029	1.943	1.962	1.915	1.895	1.908	2.851	1.921	2.503
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>1.906</b>	<b>1.929</b>	<b>2.038</b>	<b>1.947</b>	<b>1.929</b>	<b>1.980</b>	<b>2.058</b>	<b>25.97</b>	<b>173.8</b>
Stddev	.003	.003	.009	.010	.004	.010	.009	.06	.1
%RSD	.1564	.1653	.4392	.5253	.2287	.4907	.4298	.2259	.0834
#1	1.904	1.933	2.039	1.950	1.933	1.987	2.065	25.90	173.7
#2	1.906	1.928	2.047	1.955	1.929	1.984	2.061	26.01	173.8
#3	1.910	1.927	2.029	1.935	1.924	1.969	2.048	25.99	174.0
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>27.59</b>	<b>51.92</b>	<b>33.60</b>	<b>107.4</b>	<b>2.733</b>	<b>2.080</b>	<b>8.737</b>	<b>2.008</b>	<b>2.670</b>
Stddev	.05	.14	.10	.1	.010	.005	.027	.002	.007
%RSD	.1837	.2694	.3096	.0673	.3565	.2600	.3088	.1119	.2695
#1	27.56	51.77	33.63	107.4	2.743	2.085	8.755	2.007	2.666
#2	27.55	52.05	33.48	107.3	2.733	2.081	8.750	2.011	2.666
#3	27.64	51.94	33.68	107.5	2.724	2.074	8.706	2.006	2.679
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	<b>1.977</b>	<b>1.995</b>	<b>1.963</b>	<b>93.38</b>	<b>-0.003</b>	<b>-0.001</b>	<b>2.060</b>		
Stddev	.003	.007	.004	.66	.0013	.0019	.012		
%RSD	.1741	.3300	.2264	.7030	418.3	2922.	.5895		
#1	1.974	2.001	1.960	93.60	-0.017	.0014	2.054		
#2	1.975	1.996	1.960	93.90	-0.010	.0005	2.074		
#3	1.980	1.988	1.968	92.64	-0.002	-0.022	2.051		

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Sample Name: mp13671-s2 Acquired: 4/3/2019 12:17:29 Type: Unk  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	102340.	10299.	4057.1	8253.0
Stddev	204.	42.	3.5	6.0
%RSD	.19887	.40761	.08546	.07212
#1	102510.	10319.	4055.3	8246.2
#2	102390.	10327.	4054.8	8255.5
#3	102120.	10251.	4061.1	8257.3

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Sample Name: jc84498-93 Acquired: 4/3/2019 12:22:28 Type: Unk  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>1.039</b>	<b>.0006</b>	<b>.0004</b>	<b>.0007</b>	<b>.0035</b>	<b>.0064</b>	<b>.9743</b>	<b>.0034</b>	<b>.0006</b>
Stddev	.0005	.0001	.0002	.0002	.0003	.0002	.0045	.0002	.0002
%RSD	.4984	13.13	46.95	26.27	8.567	2.468	.4608	5.362	36.28
#1	.1038	.0007	.0002	.0007	.0035	.0063	.9721	.0032	.0008
#2	.1045	.0005	.0004	.0009	.0038	.0066	.9795	.0033	.0006
#3	.1034	.0006	.0005	.0006	.0032	.0065	.9713	.0036	.0003
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.0055</b>	<b>.0054</b>	<b>.0020</b>	<b>-.0005</b>	<b>.0019</b>	<b>.0002</b>	<b>.0006</b>	<b>.6778</b>	<b>154.2</b>
Stddev	.0003	.0001	.0002	.0005	.0005	.0003	.0004	.0119	.3
%RSD	4.636	2.182	10.85	105.9	24.85	213.1	61.14	1.759	.2183
#1	.0054	.0053	.0018	-.0001	.0023	.0005	.0003	.6898	153.8
#2	.0058	.0054	.0022	-.0011	.0014	-.0001	.0011	.6659	154.5
#3	.0053	.0055	.0019	-.0003	.0021	.0000	.0005	.6778	154.2
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>2.080</b>	<b>28.00</b>	<b>8.154</b>	<b>84.40</b>	<b>8.099</b>	<b>.0538</b>	<b>8.202</b>	<b>-.0019</b>	<b>.7683</b>
Stddev	.007	.12	.046	.16	.0022	.0001	.013	.0005	.0012
%RSD	.3358	.4205	.5651	.1872	.2679	.2619	.1545	25.19	.1603
#1	2.079	27.93	8.102	84.23	8.124	.0539	8.214	-.0013	.7673
#2	2.073	28.14	8.186	84.54	8.090	.0536	8.205	-.0020	.7697
#3	2.087	27.94	8.175	84.44	8.083	.0537	8.189	-.0022	.7680
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	<b>.0323</b>	<b>.0196</b>	<b>.0006</b>	<b>95.90</b>	<b>-.0013</b>	<b>.0001</b>	<b>.0712</b>		
Stddev	.0003	.0005	.0001	.51	.0001	.0015	.0013		
%RSD	.9038	2.584	21.68	.5367	9.689	2047.	1.782		
#1	.0320	.0202	.0007	96.19	-.0012	-.0014	.0710		
#2	.0326	.0196	.0006	96.20	-.0014	.0000	.0700		
#3	.0323	.0192	.0004	95.31	-.0013	.0016	.0725		

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7.3  
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Sample Name: jc84498-93 Acquired: 4/3/2019 12:22:28 Type: Unk  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	102620.	10241.	4079.2	8485.3
Stddev	342.	29.	4.6	14.1
%RSD	.33372	.28752	.11311	.16562
#1	102900.	10272.	4077.3	8479.1
#2	102240.	10213.	4075.8	8475.3
#3	102710.	10240.	4084.4	8501.3

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Sample Name: mp13671-sd1 Acquired: 4/3/2019 12:27:46 Type: Unk  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 5.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>1.061</b>	<b>.0007</b>	<b>.0014</b>	<b>.0016</b>	<b>.0080</b>	<b>.0066</b>	<b>1.002</b>	<b>.0039</b>	<b>-.0009</b>
Stddev	.0008	.0005	.0004	.0021	.0038	.0002	.002	.0015	.0029
%RSD	.7949	66.38	27.49	136.3	47.30	2.803	.2426	39.20	332.2
#1	.1070	.0002	.0018	.0035	.0104	.0066	.9991	.0023	-.0040
#2	.1054	.0007	.0010	-.0007	.0036	.0064	1.003	.0040	.0017
#3	.1058	.0011	.0014	.0020	.0100	.0068	1.003	.0054	-.0003
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.0082</b>	<b>.0085</b>	<b>.0033</b>	<b>.0014</b>	<b>.0024</b>	<b>.0007</b>	<b>.0002</b>	<b>.6822</b>	<b>158.5</b>
Stddev	.0011	.0002	.0022	.0018	.0018	.0057	.0040	.0554	.2
%RSD	13.06	2.313	66.61	132.7	73.90	817.0	2046.	8.122	.1062
#1	.0086	.0085	.0057	.0031	.0038	-.0053	.0038	.7379	158.5
#2	.0091	.0087	.0030	-.0005	.0029	.0015	-.0042	.6815	158.3
#3	.0070	.0083	.0013	.0016	.0004	.0059	.0010	.6271	158.7
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>2.126</b>	<b>28.82</b>	<b>8.214</b>	<b>85.19</b>	<b>8.221</b>	<b>.0560</b>	<b>8.292</b>	<b>-.0037</b>	<b>.7768</b>
Stddev	.025	.15	.083	.04	.0010	.0010	.019	.0026	.0009
%RSD	1.195	.5320	1.009	.0426	.1255	1.844	.2256	68.48	.1106
#1	2.117	28.74	8.120	85.18	8.218	.0551	8.309	-.0067	.7772
#2	2.106	28.99	8.250	85.16	8.212	.0557	8.272	-.0020	.7775
#3	2.154	28.71	8.274	85.23	8.232	.0571	8.296	-.0025	.7759
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	<b>.0309</b>	<b>.0460</b>	<b>.0034</b>	<b>95.07</b>	<b>-.0100</b>	<b>.0048</b>	<b>.0826</b>		
Stddev	.0011	.0029	.0007	.76	.0046	.0050	.0009		
%RSD	3.601	6.312	20.76	.8015	45.97	102.4	1.070		
#1	.0321	.0455	.0031	95.47	-.0048	.0003	.0826		
#2	.0299	.0491	.0042	94.19	-.0136	.0040	.0835		
#3	.0307	.0433	.0029	95.54	-.0115	.0102	.0818		

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Sample Name: mp13671-sd1 Acquired: 4/3/2019 12:27:46 Type: Unk  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 5.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	107080.	10320.	4308.4	9244.6
Stddev	76.	9.	4.3	12.6
%RSD	.07127	.09173	.09973	.13625
#1	107160.	10325.	4303.4	9231.3
#2	107010.	10325.	4311.1	9246.1
#3	107080.	10309.	4310.6	9256.4

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Sample Name: jc84498-102f Acquired: 4/3/2019 12:33:19 Type: Unk  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0448	.0001	.0000	.0003	.0007	.0007	2.652	.0006
Stddev	.0002	.0001	.0001	.0001	.0001	.0004	.007	.0002
%RSD	.4010	114.0	196.1	43.87	19.66	58.97	.2744	31.78
#1	.0449	.0001	-.0000	.0003	.0006	.0003	2.654	.0008
#2	.0448	-.0000	.0000	.0004	.0009	.0006	2.644	.0004
#3	.0446	.0001	.0001	.0001	.0008	.0012	2.659	.0005
Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0005	.0017	.0005	-.0008	-.0004	.0014	-.0041	.0001
Stddev	.0004	.0003	.0000	.0005	.0006	.0004	.0014	.0014
%RSD	86.29	15.03	7.882	61.73	149.7	29.86	34.90	2551.
#1	-.0001	.0017	.0005	-.0006	-.0009	.0016	-.0044	-.0006
#2	-.0009	.0020	.0005	-.0005	.0003	.0009	-.0053	.0017
#3	-.0005	.0014	.0005	-.0014	-.0006	.0016	-.0025	-.0009
Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0215	93.70	3.132	26.58	1.702	63.47	2.727	.0004
Stddev	.0150	.47	.021	.22	.029	.31	.0024	.0002
%RSD	69.70	.5012	.6579	.8421	1.678	.4836	.8727	50.49
#1	-.0131	93.70	3.109	26.48	1.700	63.59	.2738	.0004
#2	-.0387	94.16	3.146	26.84	1.732	63.69	.2744	.0002
#3	-.0125	93.22	3.142	26.43	1.675	63.12	.2700	.0005
Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 25.06	-.0033	.2046	W -.0018	.0292	W .0020	21.40	-.0021
Stddev	.15	.0006	.0007	.0000	.0012	.0002	.20	.0007
%RSD	.5994	19.37	.3264	1.381	4.136	8.927	.9218	34.05
#1	25.18	-.0041	.2047	-.0018	.0304	-.0021	21.59	-.0029
#2	25.12	-.0031	.2053	-.0017	.0292	-.0020	21.41	-.0015
#3	24.89	-.0029	.2039	-.0018	.0279	-.0018	21.20	-.0019

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Sample Name: jc84498-102f Acquired: 4/3/2019 12:33:19 Type: Unk  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Elem	Li6707	P_1774		
Units	ppm	ppm		
Avg	-.0016	.0171		
Stddev	.0015	.0003		
%RSD	96.09	1.643		
#1	-.0034	.0170		
#2	-.0008	.0170		
#3	-.0006	.0175		
Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	104710.	10329.	4203.6	8739.5
Stddev	443.	57.	23.5	49.5
%RSD	.42268	.54795	.55901	.56666
#1	104480.	10315.	4185.3	8699.8
#2	105220.	10280.	4195.5	8723.8
#3	104430.	10391.	4230.1	8795.0

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Sample Name: ccv Acquired: 4/3/2019 12:38:41 Type: QC  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.966	1.990	1.987	1.991	1.997	1.937	2.002	1.993	2.436
Stddev	.004	.003	.003	.004	.004	.007	.003	.003	.0002
%RSD	.2252	.1527	.1714	.1744	.2182	.3739	.1469	.1527	.0637
#1	1.969	1.991	1.991	1.995	1.996	1.941	2.001	1.996	2.434
#2	1.968	1.993	1.985	1.989	2.002	1.928	2.005	1.991	2.435
#3	1.961	1.987	1.984	1.989	1.994	1.941	2.000	1.992	2.437
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value Range									
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.959	2.017	1.998	2.059	2.015	1.980	2.011	39.02	39.88
Stddev	.001	.006	.004	.007	.005	.003	.000	.13	.12
%RSD	.0469	.2975	.2067	.3535	.2401	.1310	.0178	.3285	.3021
#1	1.958	2.023	2.002	2.068	2.021	1.982	2.011	39.17	40.01
#2	1.959	2.015	1.994	2.055	2.013	1.977	2.011	38.98	39.78
#3	1.959	2.012	1.998	2.056	2.012	1.980	2.011	38.92	39.85
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value Range									
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	40.08	39.70	39.39	39.14	2.029	2.020	5.039	2.048	1.965
Stddev	.02	.12	.07	.08	.003	.001	.008	.007	.005
%RSD	.0453	.3090	.1748	.1961	.1344	.0643	.1586	.3602	.2641
#1	40.08	39.68	39.43	39.20	2.032	2.022	5.048	2.057	1.966
#2	40.10	39.58	39.42	39.17	2.026	2.019	5.033	2.046	1.969
#3	40.06	39.82	39.31	39.05	2.029	2.019	5.037	2.042	1.959
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value Range									

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Zoom In  
Zoom Out

Sample Name: ccv Acquired: 4/3/2019 12:38:41 Type: QC  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Table with 8 columns: Elem, Ti3349, W\_2079, Zr3391, S\_1820, Bi2230, Li6707, P\_1774. Rows include Units, Avg, Stddev, %RSD.

Table with 8 columns: #1, #2, #3. Rows include values for each element.

Check ? Value Range table with 8 columns: Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass.

Int. Std. Units table with 4 columns: Y\_3600, Y\_3710, Y\_2243, In2306. Rows include Avg, Stddev, %RSD.

Table with 4 columns: #1, #2, #3. Rows include values for each element.

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Zoom In  
Zoom Out

Sample Name: ccb Acquired: 4/3/2019 12:43:42 Type: QC  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Table with 11 columns: Elem, Ba4554, Be3130, Cd2288, Co2286, Cr2677, Cu3247, Mn2576, Ni2316, Ag3280. Rows include Units, Avg, Stddev, %RSD.

Table with 11 columns: #1, #2, #3. Rows include values for each element.

Check ? High Limit Low Limit table with 11 columns: Chk Pass, Chk Fail, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass.

Elem Units table with 11 columns: V\_2924, Zn2062, As1890, Tl1908, Pb2203, Se1960, Sb2068, Al3961, Ca3179. Rows include Avg, Stddev, %RSD.

Table with 11 columns: #1, #2, #3. Rows include values for each element.

Check ? High Limit Low Limit table with 11 columns: Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass.

Elem Units table with 10 columns: Fe2599, Mg2790, K\_7664, Na5895, B\_2089, Mo2020, Si2124, Sn1899, Sr4077. Rows include Avg, Stddev, %RSD.

Table with 10 columns: #1, #2, #3. Rows include values for each element.

Check ? High Limit Low Limit table with 10 columns: Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass.

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7.3  
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Zoom In  
Zoom Out

Sample Name: ccb Acquired: 4/3/2019 12:43:42 Type: QC  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Table with 8 columns: Elem, Ti3349, W\_2079, Zr3391, S\_1820, Bi2230, Li6707, P\_1774. Rows include Units, Avg, Stddev, %RSD.

Table with 8 columns: #1, #2, #3. Rows include values for each element.

Check ? High Limit Low Limit table with 8 columns: Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass, Chk Pass.

Int. Std. Units table with 4 columns: Y\_3600, Y\_3710, Y\_2243, In2306. Rows include Avg, Stddev, %RSD.

Table with 4 columns: #1, #2, #3. Rows include values for each element.

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Zoom In  
Zoom Out

Sample Name: jc84498-103f Acquired: 4/3/2019 12:49:11 Type: Unk  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Table with 11 columns: Elem, Ba4554, Be3130, Cd2288, Co2286, Cr2677, Cu3247, Mn2576, Ni2316, Ag3280. Rows include Units, Avg, Stddev, %RSD.

Table with 11 columns: #1, #2, #3. Rows include values for each element.

Elem Units table with 11 columns: V\_2924, Zn2062, As1890, Tl1908, Pb2203, Se1960, Sb2068, Al3961, Ca3179. Rows include Avg, Stddev, %RSD.

Table with 11 columns: #1, #2, #3. Rows include values for each element.

Elem Units table with 10 columns: Fe2599, Mg2790, K\_7664, Na5895, B\_2089, Mo2020, Si2124, Sn1899, Sr4077. Rows include Avg, Stddev, %RSD.

Table with 10 columns: #1, #2, #3. Rows include values for each element.

Table with 8 columns: Elem, Ti3349, W\_2079, Zr3391, S\_1820, Bi2230, Li6707, P\_1774. Rows include Units, Avg, Stddev, %RSD.

Table with 8 columns: #1, #2, #3. Rows include values for each element.

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Sample Name: jc84498-103f Acquired: 4/3/2019 12:49:11 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	107220.	10332.	4285.4	9105.7
Stddev	212.	15.	8.8	14.7
%RSD	.19762	.14461	.20505	.16145
#1	106980.	10336.	4293.9	9120.2
#2	107370.	10344.	4285.8	9106.1
#3	107310.	10315.	4276.3	9090.8

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Sample Name: jc84498-104f Acquired: 4/3/2019 12:54:34 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0500	.0001	.0002	-0.0004	.0010	.0004	.0024	.0011	-0.0003
Stddev	.0002	.0000	.0000	.0004	.0004	.0002	.0001	.0001	.0001
%RSD	.4001	73.62	17.43	102.7	43.98	64.63	2.084	10.77	34.88
#1	.0501	.0000	.0002	-0.0005	.0005	.0007	.0024	.0010	-0.0003
#2	.0501	.0000	.0002	-0.0008	.0012	.0003	.0024	.0012	-0.0002
#3	.0498	.0001	.0002	-0.0004	.0013	.0002	.0024	.0012	-0.0005
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0008	.0008	-0.0010	-0.0006	.0002	-0.0005	-0.0007	-0.0230	71.27
Stddev	.0001	.0000	.0011	.0009	.0007	.0020	.0004	.0165	.12
%RSD	16.91	4.805	112.0	157.6	298.7	396.8	59.93	71.59	1.696
#1	.0010	.0008	-0.0012	-0.0016	-0.0001	-0.0007	-0.0010	-0.0041	71.20
#2	.0009	.0009	-0.0021	-0.0002	-0.0002	.0016	-0.0002	-0.0306	71.41
#3	.0007	.0008	.0002	-0.0004	.0010	-0.0024	-0.0008	-0.0344	71.21
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0066	22.67	1.023	14.02	.0118	.0004	13.33	-0.0026	2047
Stddev	.0015	.09	.034	.03	.0008	.0002	.08	.0000	.0005
%RSD	23.55	.3963	3.302	2.259	7.171	44.71	.5655	1.548	2.386
#1	.0072	22.71	1.009	13.99	.0110	.0002	13.24	-0.0026	2042
#2	.0077	22.73	.9992	14.05	.0127	.0005	13.38	-0.0026	2051
#3	.0048	22.57	1.062	14.03	.0118	.0005	13.36	-0.0027	2049
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	-0.0013	.0146	-0.0009	11.59	-0.0029	-0.0008	.0380		
Stddev	.0002	.0004	.0001	.10	.0004	.0003	.0003		
%RSD	13.13	2.473	7.212	.8823	14.86	40.32	.6993		
#1	-0.0014	.0143	-0.0009	11.47	-0.0030	-0.0004	.0383		
#2	-0.0011	.0150	-0.0009	11.65	-0.0024	-0.0010	.0377		
#3	-0.0014	.0146	-0.0010	11.65	-0.0032	-0.0009	.0381		

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7.3  
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Sample Name: jc84498-104f Acquired: 4/3/2019 12:54:34 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	107520.	10432.	4250.1	8972.6
Stddev	182.	23.	18.6	36.1
%RSD	.16911	.22452	.43709	.40192
#1	107700.	10407.	4271.3	9013.9
#2	107330.	10434.	4236.6	8947.3
#3	107530.	10454.	4242.5	8956.6

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Sample Name: jc84498-105f Acquired: 4/3/2019 12:59:58 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0492	-0.0000	.0001	.0015	.0008	.0015	.2657	.0040	-0.0006
Stddev	.0004	.0001	.0002	.0002	.0003	.0002	.0007	.0002	.0003
%RSD	.9103	507.3	193.3	15.69	41.57	13.59	.2596	6.242	47.19
#1	.0492	.0000	.0001	.0016	.0004	.0014	.2661	.0041	-0.0004
#2	.0496	.0000	-0.0001	.0016	.0010	.0018	.2660	.0037	-0.0005
#3	.0487	-0.0001	.0003	.0012	.0010	.0014	.2649	.0041	-0.0009
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0004	.0038	.0002	-0.0012	.0002	-0.0008	-0.0002	-0.0083	43.80
Stddev	.0002	.0001	.0008	.0006	.0006	.0006	.0004	.0074	.05
%RSD	54.08	2.631	446.6	49.28	262.3	70.53	174.3	89.10	1.030
#1	.0002	.0038	.0009	-0.0008	.0006	-0.0012	.0001	-0.0130	43.83
#2	.0006	.0037	-0.0006	-0.0010	.0004	-0.0002	-0.0002	-0.0123	43.82
#3	.0004	.0039	.0002	-0.0019	-0.0004	-0.0011	-0.0006	.0002	43.74
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.189	15.74	2.234	21.81	0.362	0.000	8.050	-0.0022	1227
Stddev	.025	.05	.036	.04	.0004	.0001	.087	.0002	.0010
%RSD	.7962	.3003	1.594	.1865	1.199	291.2	1.078	7.155	.8125
#1	3.210	15.72	2.228	21.85	0.364	.0000	8.005	-0.0021	1236
#2	3.197	15.79	2.201	21.81	0.365	.0001	7.994	-0.0024	1216
#3	3.161	15.70	2.272	21.77	0.357	-0.0000	8.150	-0.0022	1230
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	-0.0010	.0102	-0.0002	15.97	-0.0039	.0012	.0054		
Stddev	.0001	.0002	.0001	.18	.0003	.0008	.0004		
%RSD	5.939	2.410	48.46	1.104	7.301	64.42	8.067		
#1	-0.0010	.0099	-0.0001	15.87	-0.0037	.0020	.0058		
#2	-0.0011	.0102	-0.0003	15.87	-0.0042	.0012	.0049		
#3	-0.0010	.0104	-0.0001	16.18	-0.0039	.0004	.0055		

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Sample Name: jc84498-105f Acquired: 4/3/2019 12:59:58 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	106790.	10423.	4244.2	9029.2
Stddev	97.	29.	36.9	81.3
%RSD	.09111	.27528	.86950	.90011
#1	106770.	10390.	4264.2	9069.1
#2	106700.	10437.	4266.9	9082.9
#3	106900.	10442.	4201.7	8935.7

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Sample Name: jc84498-106f Acquired: 4/3/2019 13:05:20 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0460	-0.000	.0001	.0007	.0007	.0022	.5392	.0032
Stddev	.0002	.0000	.0001	.0002	.0002	.0004	.0003	.0002
%RSD	.4662	858.1	82.37	23.22	28.68	17.80	.0534	6.579
#1	.0463	.0000	.0001	.0008	.0009	.0021	.5389	.0030
#2	.0459	-0.000	.0002	.0007	.0008	.0026	.5393	.0032
#3	.0459	-0.000	.0001	.0005	.0005	.0018	.5394	.0035
Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000	.0008	.2367	-0.0011	F -0.0022	.0008	.0006	-0.0002
Stddev	.0004	.0003	.0010	.0005	.0010	.0003	.0009	.0007
%RSD	1293.	31.58	4.250	45.03	45.03	33.05	144.0	412.2
#1	-0.004	.0008	.2356	-0.016	-0.018	.0010	.0007	.0003
#2	.0003	.0011	.2368	-0.006	-0.033	.0005	.0014	-0.010
#3	.0002	.0006	.2376	-0.010	-0.015	.0010	-0.003	.0001
Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0120	150.4	.0069	42.36	4.148	137.6	.2829	.0044
Stddev	.0120	.2	.0007	.04	.026	.3	.0010	.0003
%RSD	85.51	.1069	9.987	.0927	.6275	.1943	.3434	5.978
#1	-0.013	150.4	.0070	42.41	4.139	137.9	.2819	.0041
#2	-0.015	150.2	.0062	42.35	4.128	137.3	.2838	.0046
#3	-0.0251	150.5	.0075	42.34	4.178	137.6	.2831	.0044
Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.886	-0.019	4.541	-0.014	.0076	-0.003	F 160.2	-0.016
Stddev	.001	.0001	.0004	.0002	.0010	.0001	.7	.0019
%RSD	.0262	7.040	.0864	13.06	12.81	44.36	.4479	115.5
#1	4.885	-0.021	4.537	-0.014	.0081	-0.004	160.6	-0.038
#2	4.888	-0.018	4.541	-0.012	.0082	-0.001	160.6	-0.005
#3	4.886	-0.019	4.545	-0.015	.0065	-0.003	159.3	-0.006

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7.3  
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Sample Name: jc84498-106f Acquired: 4/3/2019 13:05:20 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Li6707	P_1774		
Units	ppm	ppm		
Avg	.0054	.0041		
Stddev	.0008	.0010		
%RSD	15.15	23.36		
#1	.0059	.0042		
#2	.0045	.0031		
#3	.0059	.0050		
Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	102190.	10201.	4055.0	8365.1
Stddev	205.	29.	3.9	3.6
%RSD	.20045	.27978	.09573	.04361
#1	102390.	10200.	4056.8	8362.6
#2	101980.	10231.	4057.7	8363.4
#3	102190.	10174.	4050.6	8369.3

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Sample Name: jc84498-96 Acquired: 4/3/2019 13:10:38 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0400	.0001	.0002	.0022	.0012	.0019	1.833	.0018	-0.0001
Stddev	.0001	.0001	.0001	.0001	.0002	.0003	.000	.0005	.0002
%RSD	.3191	108.4	31.12	6.644	18.80	14.09	.0187	26.41	220.9
#1	.0399	.0001	.0001	.0022	.0009	.0022	1.834	.0024	-0.0002
#2	.0400	.0001	.0003	.0024	.0013	.0017	1.833	.0017	.0000
#3	.0402	-0.000	.0003	.0021	.0013	.0019	1.833	.0015	.0000
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0018	.0128	-0.004	-0.006	.0005	-0.017	-0.011	.0639	67.18
Stddev	.0003	.0000	.0008	.0002	.0002	.0015	.0008	.0054	.03
%RSD	14.58	.2807	209.0	34.27	41.77	89.39	75.06	8.520	.0373
#1	.0017	.0128	.0005	-0.003	.0004	-0.005	-0.016	.0576	67.19
#2	.0020	.0128	-0.007	-0.006	.0008	-0.011	-0.002	.0673	67.19
#3	.0015	.0128	-0.010	-0.007	.0004	-0.034	-0.014	.0668	67.15
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.343	13.37	3.614	94.36	.0438	.0045	9.897	-0.024	.3476
Stddev	.007	.07	.017	.13	.0002	.0002	.008	.0003	.0003
%RSD	.1140	.4943	.4575	.1380	.3992	3.520	.0837	10.77	.1004
#1	6.349	13.43	3.595	94.29	.0436	.0044	9.895	-0.023	.3477
#2	6.335	13.30	3.621	94.51	.0440	.0047	9.891	-0.027	.3478
#3	6.344	13.38	3.626	94.28	.0439	.0044	9.907	-0.023	.3472
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	.0011	.0112	-0.0008	49.16	-0.015	.0017	.0475		
Stddev	.0005	.0004	.0001	.20	.0004	.0006	.0010		
%RSD	45.45	4.028	10.27	.4110	28.88	38.49	2.053		
#1	.0013	.0117	-0.0008	49.37	-0.018	.0023	.0480		
#2	.0015	.0108	-0.0009	49.14	-0.016	.0017	.0464		
#3	.0006	.0110	-0.0007	48.97	-0.010	.0010	.0481		

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Sample Name: jc84498-96 Acquired: 4/3/2019 13:10:38 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	104570.	10292.	4181.2	8738.6
Stddev	187.	25.	5.3	4.4
%RSD	.17846	.24298	.12787	.04987
#1	104380.	10293.	4175.6	8735.0
#2	104750.	10267.	4181.9	8737.4
#3	104590.	10317.	4186.3	8743.5

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Sample Name: mp13765-mb1 7 Acquired: 4/3/2019 13:15:59 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001	-0.0000	.0000	-0.0002	.0000	-0.0005	.0001	.0000	-0.0006
Stddev	.0001	.0000	.0002	.0001	.0004	.0003	.0000	.0003	.0004
%RSD	130.3	102.8	915.5	25.12	1617.	57.42	42.50	995.3	63.70
#1	.0001	-0.0000	.0002	-0.0002	-0.0001	-0.0003	.0002	-0.0000	-0.0011
#2	-0.0000	-0.0001	.0001	-0.0002	-0.0002	-0.0004	.0001	.0003	-0.0004
#3	.0002	-0.0000	-0.0002	-0.0003	.0005	-0.0009	.0001	-0.0002	-0.0004
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002	-0.0001	-0.0004	-0.0011	-0.0002	-0.0000	-0.0003	-0.0005	.0141
Stddev	.0001	.0002	.0009	.0005	.0003	.0004	.0012	.0075	.0045
%RSD	40.35	130.7	230.5	43.99	195.6	2468.	413.7	1504.	32.02
#1	.0002	-0.0003	-0.0014	-0.0007	-0.0005	.0003	.0010	.0079	.0172
#2	.0004	-0.0002	.0003	-0.0016	.0000	-0.0004	-0.0005	-0.0030	.0089
#3	.0002	.0001	-0.0001	-0.0010	.0000	.0001	-0.0014	-0.0064	.0162
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0068	-0.0139	-0.0344	.0410	-0.0003	-0.0000	.0068	-0.0005	-0.0000
Stddev	.0030	.0218	.0194	.0122	.0003	.0001	.0009	.0001	.0001
%RSD	44.48	156.4	56.53	29.76	107.2	338.3	12.55	23.19	494.7
#1	.0081	-0.0357	-0.0343	.0518	-0.0004	.0001	.0060	-0.0006	-0.0001
#2	.0089	.0078	-0.0538	.0434	-0.0005	-0.0001	.0067	-0.0004	.0001
#3	.0033	-0.0139	-0.0150	.0278	-0.0001	-0.0001	.0077	-0.0006	-0.0001
Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	-0.0002	.0028	.0003	.0083	-0.0013	.0003	.0034		
Stddev	.0002	.0005	.0001	.0023	.0014	.0010	.0007		
%RSD	100.8	16.73	29.46	27.40	112.0	283.3	21.28		
#1	-0.0002	.0031	.0002	.0063	-0.0008	.0014	.0031		
#2	-0.0000	.0029	.0004	.0079	-0.0028	.0001	.0042		
#3	-0.0004	.0022	.0003	.0108	-0.0002	-0.0005	.0029		

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7.3  
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Sample Name: mp13765-mb1 7 Acquired: 4/3/2019 13:15:59 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	111420.	10492.	4426.3	9742.5
Stddev	55.	25.	5.9	14.3
%RSD	.04950	.24145	.13224	.14691
#1	111430.	10479.	4428.1	9740.4
#2	111360.	10475.	4431.0	9757.8
#3	111470.	10521.	4419.7	9729.4

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Sample Name: mp13765-b1 Acquired: 4/3/2019 13:21:26 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.905	1.929	1.910	1.907	1.921	1.879	1.927	1.901
Stddev	.001	.001	.019	.015	.002	.004	.003	.013
%RSD	.0701	.0400	.9936	.8098	.1249	.2036	.1549	.6953
#1	1.907	1.930	1.914	1.914	1.922	1.878	1.930	1.906
#2	1.905	1.929	1.890	1.890	1.921	1.876	1.928	1.886
#3	1.904	1.929	1.927	1.919	1.918	1.883	1.924	1.911
Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2419	1.885	1.933	1.878	1.998	1.930	1.901	1.915
Stddev	.0002	.002	.016	.019	.018	.014	.017	.018
%RSD	.0674	.0885	.8204	1.009	.9263	.7280	.9134	.9243
#1	2418	1.886	1.938	1.887	2.008	1.936	1.908	1.922
#2	2418	1.883	1.916	1.856	1.977	1.914	1.881	1.895
#3	2421	1.885	1.947	1.890	2.011	1.940	1.914	1.928
Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.51	25.06	25.19	24.65	24.67	24.60	1.933	1.928
Stddev	.06	.06	.03	.09	.03	.03	.019	.018
%RSD	.2378	.2408	.1147	.3792	.1235	.1342	.9861	.9513
#1	24.58	25.11	25.20	24.75	24.70	24.64	1.941	1.935
#2	24.48	25.00	25.21	24.62	24.64	24.60	1.911	1.907
#3	24.48	25.08	25.16	24.57	24.67	24.57	1.946	1.942
Elem	Si2124	Sn1899	Sr4077	Tl3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.002	1.955	1.900	1.864	1.876	1.863	F-.0803	-0.007
Stddev	.0013	.025	.002	.001	.018	.000	.0018	.0002
%RSD	1.297	1.293	.1144	.0424	.9845	.0228	2.266	35.12
#1	1.009	1.973	1.901	1.864	1.883	1.863	-0.0786	-0.010
#2	.0987	1.926	1.901	1.865	1.855	1.863	-0.0799	-0.007
#3	.1011	1.965	1.897	1.863	1.889	1.863	-0.0822	-0.005

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Sample Name: mp13765-b1 Acquired: 4/3/2019 13:21:26 Type: Unk  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Elem	Li6707	P_1774		
Units	ppm	ppm		
Avg	-0010	1.914		
Stddev	.0014	.019		
%RSD	134.4	.9931		
#1	-0021	1.927		
#2	.0005	1.892		
#3	-.0016	1.923		
Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	107090.	10399.	4325.4	8969.7
Stddev	417.	28.	31.2	52.2
%RSD	.38951	.26755	.72158	.58164
#1	106650.	10368.	4317.0	8952.2
#2	107130.	10422.	4360.0	9028.4
#3	107480.	10407.	4299.3	8928.5

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Sample Name: jc85589-1a Acquired: 4/3/2019 13:26:28 Type: Unk  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	0007	0000	0001	0002	0002	-0003	0004	0013	-0006
Stddev	.0003	.0001	.0001	.0000	.0002	.0001	.0001	.0002	.0002
%RSD	41.93	444.2	136.8	10.86	112.4	36.22	14.95	18.53	28.20
#1	.0007	-0000	-0001	.0003	.0003	-0005	.0005	.0016	-0009
#2	.0010	-0001	.0002	.0002	.0003	-0003	.0005	.0012	-0006
#3	.0004	.0001	.0002	.0003	-0001	-0002	.0004	.0011	-0005
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	0002	0184	0007	0000	0007	0000	0004	0012	1338
Stddev	.0002	.0000	.0013	.0013	.0003	.0024	.0005	.0012	.0024
%RSD	68.73	.2521	199.9	3130.	37.24	7608.	117.4	98.53	1.824
#1	.0003	.0184	-0013	.0012	.0006	-0022	-0006	-0010	.1313
#2	.0003	.0184	-0015	-0013	.0011	-0003	-0007	-0024	.1362
#3	.0001	.0184	.0009	.0002	.0006	.0024	.0001	-0001	.1340
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	0052	0049	0086	0423	0010	0001	0452	0010	0026
Stddev	.0020	.0116	.0317	.0044	.0001	.0000	.0007	.0002	.0001
%RSD	39.07	235.7	366.5	10.49	8.521	17.93	1.439	15.76	3.266
#1	.0070	.0092	.0273	.0474	.0010	.0001	.0458	-0008	.0025
#2	.0030	-0082	-0206	.0396	.0011	.0001	.0445	-0010	.0026
#3	.0055	.0137	-0326	.0399	.0010	.0001	.0453	-0011	.0027
Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	0003	0021	0004	0025	0005	0008	0051		
Stddev	.0003	.0006	.0001	.0008	.0021	.0017	.0001		
%RSD	101.7	27.84	22.65	30.05	460.0	203.4	2.398		
#1	.0007	.0014	.0004	.0021	.0001	-0005	.0050		
#2	.0003	.0023	.0006	.0021	.0014	.0002	.0052		
#3	.0000	.0026	.0004	.0034	-0028	.0027	.0051		

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7.3  
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Sample Name: jc85589-1a Acquired: 4/3/2019 13:26:28 Type: Unk  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	111170.	10535.	4403.4	9699.2
Stddev	54.	14.	1.5	5.4
%RSD	.04878	.12871	.03409	.05521
#1	111180.	10520.	4401.7	9695.0
#2	111110.	10547.	4404.2	9697.4
#3	111220.	10537.	4404.4	9705.3

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Sample Name: ccv Acquired: 4/3/2019 13:31:59 Type: QC  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.974	1.998	1.994	2.006	2.005	1.945	2.008	1.999	2.433
Stddev	.001	.001	.003	.004	.005	.004	.004	.003	.0002
%RSD	.0691	.0616	.1645	.1741	.2415	.1826	.1815	.1234	.1010
#1	1.974	1.999	1.993	2.010	2.005	1.941	2.007	2.001	.2431
#2	1.976	1.998	1.997	2.003	2.010	1.947	2.012	1.996	.2435
#3	1.973	1.996	1.991	2.004	2.000	1.947	2.005	2.000	.2432
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.964	2.024	2.018	2.072	2.025	1.998	2.033	39.02	39.89
Stddev	.003	.002	.002	.005	.005	.002	.003	.05	.03
%RSD	.1572	.0819	.0794	.2372	.2296	.0749	.1648	.1180	.0676
#1	1.964	2.025	2.019	2.075	2.029	1.996	2.032	38.96	39.86
#2	1.967	2.025	2.019	2.067	2.025	1.999	2.036	39.04	39.91
#3	1.961	2.022	2.016	2.075	2.020	1.999	2.030	39.05	39.91
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	40.10	39.67	39.61	39.31	2.047	2.035	5.084	2.061	1.971
Stddev	.04	.03	.08	.02	.002	.001	.005	.002	.000
%RSD	.1075	.0731	.2058	.0419	.0864	.0472	.0973	.1119	.0219
#1	40.15	39.66	39.52	39.29	2.048	2.034	5.080	2.063	1.971
#2	40.07	39.70	39.68	39.32	2.048	2.035	5.089	2.059	1.971
#3	40.08	39.65	39.63	39.32	2.045	2.036	5.082	2.060	1.972
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

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Sample Name: ccv Acquired: 4/3/2019 13:31:59 Type: QC  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.978	1.997	1.983	2.018	2.026	1.986	2.011
Stddev	.002	.003	.003	.005	.001	.001	.003
%RSD	.1209	.1542	.1357	.2288	.0619	.0648	.1445
#1	1.978	1.995	1.982	2.024	2.024	1.986	2.007
#2	1.981	2.001	1.986	2.015	2.027	1.988	2.013
#3	1.976	1.997	1.981	2.017	2.026	1.985	2.012

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
 Value  
 Range

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	104710.	10215.	4269.5	8699.4
Stddev	170.	31.	.9	11.7
%RSD	.16199	.30336	.02002	.13435

#1	104840.	10251.	4270.2	8686.5
#2	104520.	10197.	4268.5	8709.2
#3	104780.	10198.	4269.8	8702.6

Sample Name: ccb Acquired: 4/3/2019 13:37:00 Type: QC  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0009	F .0007	.0005	.0005	.0005	.0002	.0007	.0002	-.0006
Stddev	.0002	.0000	.0003	.0003	.0002	.0002	.0001	.0001	.0000
%RSD	22.37	6.535	63.16	60.27	47.41	105.2	8.158	69.80	7.585
#1	.0006	.0007	.0009	.0007	.0004	.0001	.0008	.0000	-.0005
#2	.0010	.0006	.0005	.0006	.0004	.0003	.0007	.0003	-.0006
#3	.0010	.0007	.0002	.0002	.0008	.0000	.0007	.0003	-.0006

Check ? Chk Pass Chk Fail Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
 High Limit  
 Low Limit

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0008	.0004	.0007	.0006	.0008	.0003	-.0003	.0029	.0155
Stddev	.0001	.0003	.0006	.0009	.0008	.0008	.0008	.0031	.0001
%RSD	13.76	66.56	90.69	135.3	108.4	259.0	281.3	107.7	30.24

#1	.0007	.0007	.0007	-.0004	.0017	-.0004	.0000	.0060	.0110
#2	.0008	.0004	.0001	.0011	.0002	.0012	-.0012	.0027	.0152
#3	.0010	.0001	.0014	.0012	.0003	.0002	.0003	-.0002	.0203

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
 High Limit  
 Low Limit

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sr1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .0151	.0203	.0491	.0289	.0014	.0007	.0018	.0001	.0008
Stddev	.0050	.0312	.0286	.0095	.0002	.0004	.0005	.0001	.0001
%RSD	33.23	154.0	58.15	33.06	14.88	54.77	25.32	98.90	6.604
#1	.0110	.0385	.0812	.0388	.0016	.0010	.0023	.0002	.0007
#2	.0136	.0380	.0396	.0197	.0014	.0007	.0018	-.0000	.0007
#3	.0207	-.0158	.0266	.0281	.0012	.0003	.0014	.0002	.0008

7.3  
7

Sample Name: ccb Acquired: 4/3/2019 13:37:00 Type: QC  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001	.0018	.0008	.0010	-.0015	.0018	.0042
Stddev	.0002	.0007	.0001	.0019	.0009	.0004	.0008
%RSD	149.9	39.41	7.310	186.2	61.67	20.76	18.97
#1	.0002	.0019	.0007	-.0011	-.0021	.0022	.0047
#2	-.0001	.0025	.0008	.0023	-.0004	.0015	.0046
#3	.0002	.0011	.0008	.0019	-.0020	.0016	.0033

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
 High Limit  
 Low Limit

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	110660.	10372.	4422.9	9722.6
Stddev	160.	16.	8.4	15.2
%RSD	.14463	.15129	.18973	.15600

#1	110500.	10356.	4427.4	9726.6
#2	110670.	10387.	4413.2	9705.8
#3	110820.	10375.	4428.0	9735.3

Sample Name: mp13765-s1 Acquired: 4/3/2019 13:42:29 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.255	1.911	1.909	1.914	1.903	1.878	2.765	1.905	.2435
Stddev	.003	.003	.039	.036	.003	.002	.001	.035	.0004
%RSD	.1192	.1629	2.025	1.867	.1295	.1160	.0360	1.861	.1459
#1	2.252	1.907	1.912	1.918	1.906	1.880	2.764	1.908	.2439
#2	2.256	1.913	1.946	1.947	1.901	1.875	2.766	1.939	.2432
#3	2.257	1.912	1.869	1.876	1.902	1.879	2.766	1.869	.2434

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
 High Limit  
 Low Limit

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.878	1.919	1.897	1.850	1.921	1.904	1.922	24.23	49.87
Stddev	.001	.035	.036	.037	.034	.038	.040	.07	.04
%RSD	.0466	1.832	1.924	1.880	1.751	2.013	2.091	.2698	.0877
#1	1.879	1.924	1.903	1.957	1.923	1.914	1.926	24.23	49.98
#2	1.879	1.951	1.931	1.984	1.953	1.936	1.960	24.29	50.01
#3	1.877	1.882	1.858	1.911	1.886	1.861	1.880	24.16	49.92

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sr1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	32.43	30.04	26.06	73.25	1.976	1.922	6.842	1.926	2.043
Stddev	.11	.11	.05	.04	.041	.040	.145	.040	.002
%RSD	.3262	.3719	.1834	.0501	2.054	2.060	2.123	2.062	.0970
#1	32.38	29.95	26.02	73.23	1.979	1.925	6.852	1.930	2.040
#2	32.56	30.16	26.04	73.30	2.014	1.961	6.982	1.963	2.044
#3	32.37	29.99	26.11	73.23	1.933	1.882	6.692	1.884	2.044

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.865	1.892	1.868	8.096	-.0005	.0022	1.947
Stddev	.001	.039	.002	.160	.0007	.0007	.042
%RSD	.0674	2.068	.1001	1.976	162.9	30.26	2.176
#1	1.865	1.897	1.868	8.109	-.0003	.0028	1.958
#2	1.863	1.928	1.866	8.250	-.0013	.0015	1.984
#3	1.866	1.850	1.870	7.931	.0002	.0024	1.901

Sample Name: mp13765-s1 Acquired: 4/3/2019 13:42:29 Type: Unk  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	105550.	10497.	4253.3	8695.6
Stddev	76.	39.	70.7	129.3
%RSD	.07159	.37092	1.6625	1.4868
#1	105580.	10511.	4245.4	8678.9
#2	105470.	10453.	4186.8	8575.4
#3	105610.	10527.	4327.6	8832.4

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Sample Name: mp13765-s2 Acquired: 4/3/2019 13:47:29 Type: Unk  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.313	1.959	1.954	1.952	1.932	1.919	2.826	1.946	2.470
Stddev	.004	.002	.002	.001	.004	.003	.005	.001	.0003
%RSD	.1651	.0870	.1047	.0410	.2000	.1281	.1887	.0304	.1164
#1	2.317	1.961	1.952	1.952	1.930	1.921	2.826	1.946	2.467
#2	2.309	1.960	1.956	1.953	1.937	1.918	2.831	1.947	2.473
#3	2.312	1.957	1.954	1.952	1.930	1.917	2.821	1.946	2.471
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.919	1.961	1.930	1.994	1.959	1.949	1.958	24.75	51.18
Stddev	.005	.003	.004	.008	.001	.003	.006	.06	.09
%RSD	.2420	.1654	.2023	.3981	.0723	.1751	.3297	.2516	.1739
#1	1.919	1.963	1.928	1.989	1.961	1.946	1.951	24.82	51.28
#2	1.924	1.963	1.929	1.989	1.959	1.952	1.959	24.71	51.10
#3	1.915	1.957	1.935	2.003	1.958	1.949	1.963	24.73	51.17
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	33.24	30.85	26.69	75.21	2.019	1.960	7.036	1.960	2.097
Stddev	.02	.06	.04	.10	.003	.002	.012	.003	.002
%RSD	.0725	.2033	.1454	.1344	.1623	.1117	.1675	.1502	.0951
#1	33.24	30.86	26.71	75.32	2.015	1.958	7.024	1.963	2.099
#2	33.21	30.90	26.64	75.12	2.022	1.962	7.037	1.960	2.096
#3	33.26	30.78	26.70	75.19	2.019	1.961	7.048	1.957	2.096
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	1.896	1.927	1.898	8.351	-0.002	0.012	1.998		
Stddev	.003	.002	.003	.022	.0011	.0009	.012		
%RSD	.1664	.0784	.1645	.2635	432.3	76.27	.6172		
#1	1.895	1.926	1.896	8.338	-0.001	.0009	1.991		
#2	1.899	1.926	1.901	8.339	-0.014	.0005	1.991		
#3	1.893	1.929	1.895	8.377	.0008	.0022	2.012		

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Sample Name: mp13765-s2 Acquired: 4/3/2019 13:47:29 Type: Unk  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	105540.	10372.	4238.3	8674.9
Stddev	246.	14.	3.3	3.2
%RSD	.23334	.13479	.07765	.03673
#1	105610.	10364.	4238.1	8671.5
#2	105270.	10389.	4235.1	8675.2
#3	105750.	10365.	4241.7	8677.9

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Sample Name: jc85513-5f Acquired: 4/3/2019 13:52:28 Type: Unk  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.689	0.003	0.004	0.047	0.007	0.006	8.812	0.025	-0.002
Stddev	0.005	0.001	0.000	0.002	0.001	0.001	0.018	0.006	0.003
%RSD	.1324	41.08	5.055	4.023	7.861	19.56	.2050	24.88	188.0
#1	3.694	0.004	0.004	0.049	0.008	0.007	8.810	0.025	-0.006
#2	3.688	0.002	0.004	0.048	0.008	0.005	8.831	0.032	0.001
#3	3.685	0.002	0.003	0.045	0.007	0.005	8.795	0.019	-0.001
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	0.010	0.044	0.013	0.002	0.007	-0.007	-0.002	0.100	25.78
Stddev	0.004	0.001	0.017	0.006	0.007	0.008	0.008	0.134	.06
%RSD	36.20	1.565	129.2	248.5	99.42	117.9	379.1	133.3	2.454
#1	0.006	0.043	-0.004	0.004	-0.015	-0.010	-0.009	0.040	25.71
#2	0.014	0.044	0.014	-0.004	0.001	-0.014	0.007	0.008	25.83
#3	0.010	0.045	0.029	0.007	0.005	0.002	-0.004	0.0254	25.80
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.923	6.143	1.593	49.48	0.507	0.003	6.849	-0.013	1.635
Stddev	.051	.040	.013	.02	.0006	.0002	.011	.0005	.0003
%RSD	.6485	.6479	.8118	.0448	1.152	61.03	.1587	36.68	.1828
#1	7.869	6.099	1.583	49.49	0.514	0.004	6.862	-0.014	1.632
#2	7.931	6.157	1.608	49.49	0.503	0.001	6.842	-0.008	1.636
#3	7.971	6.175	1.590	49.45	0.504	0.004	6.844	-0.017	1.638
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	-0.010	-0.089	-0.002	8.291	-0.023	0.021	0.316		
Stddev	.0004	.0008	.0000	.008	.0015	.0013	.0004		
%RSD	40.96	8.622	15.49	1.003	63.93	60.94	1.404		
#1	-0.007	0.095	-0.002	8.296	-0.039	0.013	0.315		
#2	-0.009	0.092	-0.003	8.282	-0.011	0.015	0.313		
#3	-0.015	0.081	-0.002	8.296	-0.018	0.036	0.321		

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Zoom In  
Zoom Out

Sample Name: jc85513-5f Acquired: 4/3/2019 13:52:28 Type: Unk  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	107620.	10471.	4284.9	9069.0
Stddev	424.	54.	3.0	7.4
%RSD	.39423	.51408	.06958	.08212
#1	107580.	10510.	4285.9	9073.0
#2	107220.	10409.	4287.2	9073.6
#3	108070.	10493.	4281.5	9060.4

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Zoom In  
Zoom Out

Sample Name: mp13765-sd1 Acquired: 4/3/2019 13:57:49 Type: Unk  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 5.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.3750</b>	<b>-0.0000</b>	<b>.0015</b>	<b>.0042</b>	<b>.0037</b>	<b>.0014</b>	<b>.9093</b>	<b>.0028</b>	<b>-0.0018</b>
Stddev	.0008	.0007	.0007	.0019	.0006	.0017	.0174	.0009	.0022
%RSD	.2085	.3119.	43.32	43.95	16.71	119.3	1.919	31.61	125.1
#1	.3759	-.0002	.0017	.0021	.0030	-.0001	.8993	.0038	.0008
#2	.3747	-.0007	.0008	.0048	.0040	.0011	.8992	.0026	-.0027
#3	.3745	.0008	.0020	.0057	.0040	.0032	.9294	.0021	-.0033
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.0021</b>	<b>.0009</b>	<b>.0046</b>	<b>.0016</b>	<b>.0026</b>	<b>-0.0004</b>	<b>-0.0033</b>	<b>.0046</b>	<b>26.66</b>
Stddev	.0013	.0003	.0008	.0037	.0021	.0048	.0052	.0555	.03
%RSD	59.95	30.43	17.81	233.1	80.32	1231.	155.6	1207.	.1053
#1	.0009	.0009	.0037	.0011	.0049	-.0034	-.0013	.0132	26.63
#2	.0020	.0011	.0053	.0055	.0019	.0052	.0005	-.0547	26.67
#3	.0035	.0006	.0048	-.0019	.0009	-.0030	-.0093	.0552	26.68
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>8.011</b>	<b>6.327</b>	<b>1.580</b>	<b>50.22</b>	<b>.0517</b>	<b>.0005</b>	<b>6.956</b>	<b>-0.0020</b>	<b>1.666</b>
Stddev	.049	.103	.136	.04	.0003	.0004	.019	.0003	.0014
%RSD	.6111	1.629	8.605	.0771	.5507	88.56	.2673	15.48	.8664
#1	7.981	6.252	1.704	50.19	.0515	.0005	6.950	-.0018	.1652
#2	8.068	6.284	1.601	50.26	.0517	.0009	6.977	-.0018	.1666
#3	7.985	6.445	1.435	50.22	.0521	.0001	6.942	-.0024	.1681
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	<b>-0.0000</b>	<b>.0145</b>	<b>.0007</b>	<b>8.231</b>	<b>-0.0036</b>	<b>.0011</b>	<b>.0441</b>		
Stddev	.0010	.0024	.0004	.027	.0027	.0043	.0057		
%RSD	2107.	16.31	60.87	.3332	76.79	386.5	13.02		
#1	.0009	.0145	.0010	8.199	-.0056	.0025	.0396		
#2	.0001	.0169	.0002	8.246	-.0004	.0046	.0506		
#3	-.0011	.0122	.0010	8.248	-.0047	-.0037	.0422		

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7.3  
7

Zoom In  
Zoom Out

Sample Name: mp13765-sd1 Acquired: 4/3/2019 13:57:49 Type: Unk  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 5.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	108850.	10404.	4392.5	9547.9
Stddev	1745.	52.	16.1	27.3
%RSD	1.6032	.50450	.36751	.28563
#1	110000.	10344.	4381.2	9529.0
#2	109700.	10426.	4385.3	9535.5
#3	106840.	10441.	4411.0	9579.1

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Zoom In  
Zoom Out

Sample Name: mp13751-mb1 Acquired: 4/3/2019 14:03:11 Type: Unk  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.0005</b>	<b>.0001</b>	<b>.0002</b>	<b>.0000</b>	<b>.0012</b>	<b>.0022</b>	<b>.0006</b>	<b>.0005</b>	<b>-0.0003</b>
Stddev	.0002	.0001	.0001	.0003	.0002	.0002	.0000	.0002	.0002
%RSD	48.38	84.87	27.82	1048.	21.27	10.88	3.067	45.05	52.68
#1	.0005	.0002	.0002	.0002	.0011	.0025	.0006	.0005	-.0002
#2	.0003	.0001	.0003	-.0003	.0015	.0020	.0006	.0002	-.0005
#3	.0007	.0000	.0002	.0002	.0010	.0021	.0005	.0006	-.0002
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-0.0000</b>	<b>.0155</b>	<b>.0008</b>	<b>.0006</b>	<b>.0003</b>	<b>-0.0005</b>	<b>.0001</b>	<b>.0157</b>	<b>1.191</b>
Stddev	.0000	.0001	.0011	.0008	.0007	.0011	.0006	.0028	.0030
%RSD	585.7	.6486	144.6	137.3	238.2	219.8	817.7	17.73	2.151
#1	.0000	.0156	-.0005	-.0003	.0002	-.0010	-.0004	.0187	.1418
#2	-.0001	.0154	.0011	.0010	-.0004	.0008	.0008	.0132	.1359
#3	.0000	.0155	.0017	.0011	.0011	-.0013	-.0002	.0153	.1396
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.0391</b>	<b>.0466</b>	<b>.0463</b>	<b>.0872</b>	<b>.0007</b>	<b>.0003</b>	<b>.0097</b>	<b>.0205</b>	<b>.0003</b>
Stddev	.0019	.0197	.0381	.0104	.0006	.0001	.0007	.0010	.0001
%RSD	4.757	42.32	82.36	11.91	85.24	29.25	6.760	4.699	37.42
#1	.0387	.0689	.0704	.0849	.0011	.0003	.0105	.0198	.0003
#2	.0374	.0393	.0660	.0986	.0010	.0004	.0092	.0216	.0002
#3	.0411	.0316	.0023	.0782	.0000	.0002	.0095	.0201	.0004
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	<b>.0005</b>	<b>.0006</b>	<b>.0004</b>	<b>.0176</b>	<b>.0001</b>	<b>-0.0004</b>	<b>.0247</b>		
Stddev	.0002	.0004	.0001	.0011	.0012	.0008	.0008		
%RSD	38.55	63.27	34.80	6.033	831.0	209.9	3.111		
#1	.0007	.0004	.0005	.0186	.0015	-.0012	.0251		
#2	.0005	.0004	.0005	.0177	-.0004	-.0005	.0238		
#3	.0004	.0011	.0002	.0165	-.0007	.0005	.0251		

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Zoom In Zoom Out

Sample Name: mp13751-mb1 Acquired: 4/3/2019 14:03:11 Type: Unk
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 5 columns: Int. Std., Y\_3600, Y\_3710, Y\_2243, ln2306. Rows include Units, Avg, Stddev, %RSD.

Table with 5 columns: #1, #2, #3. Rows include 111710, 112080, 112350 for Y\_3600 and other metrics.

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Zoom In Zoom Out

Sample Name: mp13751-b1 Acquired: 4/3/2019 14:08:38 Type: Unk
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 10 columns: Elem, Ba4554, Be3130, Cd2288, Co2286, Cr2677, Cu3247, Mn2576, Ni2316. Rows include Units, Avg, Stddev, %RSD.

Table with 10 columns: #1, #2, #3. Rows include 1.879, 1.877, 1.879 for Ba4554 and other metrics.

Table with 10 columns: Elem, Ag3280, V\_2924, Zn2062, As1890, Tl1908, Pb2203, Se1960, Sb2068. Rows include Units, Avg, Stddev, %RSD.

Table with 10 columns: #1, #2, #3. Rows include .2394, .2406, .2393 for Ag3280 and other metrics.

Table with 10 columns: Elem, Al3961, Ca3179, Fe2599, Mg2790, K\_7664, Na5895, B\_2089, Mo2020. Rows include Units, Avg, Stddev, %RSD.

Table with 10 columns: #1, #2, #3. Rows include 24.02, 23.99, 23.99 for Al3961 and other metrics.

Table with 10 columns: Elem, Si2124, Sn1899, Sr4077, Ti3349, W\_2079, Zr3391, S\_1820, Bi2230. Rows include Units, Avg, Stddev, %RSD.

Table with 10 columns: #1, #2, #3. Rows include .0351, .0375, .0366 for Si2124 and other metrics.

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7.3 7

Zoom In Zoom Out

Sample Name: mp13751-b1 Acquired: 4/3/2019 14:08:38 Type: Unk
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 3 columns: Elem, Li6707, P\_1774. Rows include Units, Avg, Stddev, %RSD.

Table with 3 columns: #1, #2, #3. Rows include -.0015, -.0005, -.0021 for Li6707.

Table with 5 columns: Int. Std., Y\_3600, Y\_3710, Y\_2243, ln2306. Rows include Units, Avg, Stddev, %RSD.

Table with 5 columns: #1, #2, #3. Rows include 107350, 107640, 107120 for Y\_3600 and other metrics.

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Zoom In Zoom Out

Sample Name: mp13751-s1conf Acquired: 4/3/2019 14:13:39 Type: Unk
Method: SGS 3(v260) Mode: CONC Corr. Factor: 2.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 11 columns: Elem, Ba4554, Be3130, Cd2288, Co2286, Cr2677, Cu3247, Mn2576, Ni2316, Ag3280. Rows include Units, Avg, Stddev, %RSD.

Table with 11 columns: #1, #2, #3. Rows include 1.847, 1.849, 1.853 for Ba4554 and other metrics.

Table with 10 columns: Elem, V\_2924, Zn2062, As1890, Tl1908, Pb2203, Se1960, Sb2068, Al3961, Ca3179. Rows include Units, Avg, Stddev, %RSD.

Table with 10 columns: #1, #2, #3. Rows include 1.881, 1.887, 1.876 for V\_2924 and other metrics.

Table with 10 columns: Elem, Fe2599, Mg2790, K\_7664, Na5895, B\_2089, Mo2020, Si2124, Sn1899, Sr4077. Rows include Units, Avg, Stddev, %RSD.

Table with 10 columns: #1, #2, #3. Rows include 441.6, 442.8, 441.8 for Fe2599 and other metrics.

Table with 10 columns: Elem, Ti3349, W\_2079, Zr3391, S\_1820, Bi2230, Li6707, P\_1774. Rows include Units, Avg, Stddev, %RSD.

Table with 10 columns: #1, #2, #3. Rows include 2.328, 2.320, 2.313 for Ti3349 and other metrics.

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Zoom In  
Zoom Out

Sample Name: mp13751-s1conf Acquired: 4/3/2019 14:13:39 Type: Unk  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 2.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	115450.	11356.	4680.9	9159.1
Stddev	460.	25.	4.4	6.1
%RSD	.39834	.21887	.09353	.06702
#1	115270.	11378.	4679.6	9152.1
#2	115100.	11329.	4677.3	9163.6
#3	115970.	11362.	4685.8	9161.6

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Zoom In  
Zoom Out

Sample Name: mp13751-s2conf Acquired: 4/3/2019 14:18:39 Type: Unk  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 2.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.890	1.741	1.764	1.877	1.899	1.926	4.359	2.001	2.147
Stddev	.001	.006	.003	.001	.002	.004	.006	.003	.0010
%RSD	.0604	.3306	.1556	.0608	.1232	.1813	.1319	.1538	.4657
#1	1.890	1.735	1.761	1.878	1.901	1.922	4.363	2.004	2.143
#2	1.889	1.745	1.764	1.876	1.900	1.929	4.361	1.998	2.140
#3	1.891	1.745	1.767	1.876	1.896	1.926	4.353	2.001	2.159
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.883	2.241	1.790	1.887	1.883	1.681	1.347	95.18	49.81
Stddev	.003	.003	.004	.002	.004	.004	.004	.11	.08
%RSD	.1686	.1428	.2363	.1259	.2254	.2248	.2710	.1200	.1627
#1	1.886	2.243	1.790	1.887	1.887	1.685	1.352	95.21	49.82
#2	1.884	2.237	1.785	1.885	1.879	1.680	1.346	95.27	49.89
#3	1.880	2.242	1.794	1.890	1.883	1.677	1.345	95.05	49.73
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	388.3	37.70	25.79	25.41	1.669	1.779	3.485	1.799	1.795
Stddev	.8	.12	.03	.06	.004	.001	.004	.006	.002
%RSD	.2074	.3298	.1278	.2469	.2172	.0291	.1195	.3416	.1196
#1	387.4	37.56	25.76	25.34	1.671	1.779	3.483	1.806	1.793
#2	388.7	37.76	25.83	25.46	1.665	1.779	3.489	1.794	1.797
#3	388.8	37.78	25.77	25.43	1.671	1.779	3.482	1.797	1.796
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	2.289	1.571	1.795	.0114	-.0013	.0154	5.723		
Stddev	.003	.003	.001	.0039	.0027	.0027	.030		
%RSD	.1108	.1943	.0318	34.42	203.4	17.32	.5255		
#1	2.290	1.573	1.795	.0159	-.0044	.0152	5.749		
#2	2.290	1.567	1.795	.0088	.0003	.0129	5.731		
#3	2.286	1.572	1.796	.0094	.0002	.0182	5.690		

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7.3  
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Zoom In  
Zoom Out

Sample Name: mp13751-s2conf Acquired: 4/3/2019 14:18:39 Type: Unk  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 2.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	114500.	11265.	4642.7	9134.6
Stddev	273.	23.	10.0	13.8
%RSD	.23807	.20132	.21549	.15108
#1	114390.	11291.	4646.6	9131.3
#2	114300.	11256.	4650.1	9149.8
#3	114810.	11248.	4631.3	9122.9

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Zoom In  
Zoom Out

Sample Name: jc85273-1conf Acquired: 4/3/2019 14:23:39 Type: Unk  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 2.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0437	.0037	-.0015	.0863	.1146	.2103	2.414	.2221
Stddev	.0031	.0003	.0003	.0057	.0087	.0144	.176	.0166
%RSD	7.183	7.820	17.42	6.637	7.621	6.868	7.283	7.494
#1	.0408	.0033	-.0016	.0800	.1060	.1958	2.240	.2041
#2	.0433	.0038	-.0012	.0875	.1143	.2104	2.409	.2254
#3	.0470	.0038	-.0017	.0913	.1234	.2246	2.592	.2369
Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F -.0249	.1455	.5679	.0762	F -.0100	.0460	F -.0320	.0006
Stddev	.0027	.0093	.0340	.0044	.0005	.0037	.0036	.0009
%RSD	10.74	6.361	5.980	5.730	5.160	8.055	11.40	143.0
#1	-.0228	.1362	.5312	.0716	-.0096	.0417	-.0302	.0010
#2	-.0241	.1457	.5742	.0768	-.0106	.0482	-.0295	-.0004
#3	-.0279	.1547	.5983	.0803	-.0098	.0481	-.0362	.0012
Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	23.38	8.480	274.1	4.431	5.990	1.386	.0056	.0056
Stddev	1.37	.494	15.3	.234	.0484	.093	.0011	.0003
%RSD	5.846	5.824	5.583	5.292	8.079	6.724	19.01	5.466
#1	22.04	7.998	258.8	4.182	5.477	1.286	.0066	.0054
#2	23.34	8.456	274.1	4.462	6.055	1.403	.0058	.0054
#3	24.77	8.985	289.5	4.648	6.439	1.470	.0045	.0060
Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.053	.0243	.0238	.5783	.0119	.0657	.1009	.0138
Stddev	.130	.0014	.0014	.0398	.0024	.0048	.0074	.0019
%RSD	6.338	5.671	6.089	6.874	19.83	7.242	7.288	13.72
#1	1.911	.0243	.0223	.5402	.0134	.0609	.0928	.0150
#2	2.081	.0229	.0238	.5751	.0092	.0660	.1072	.0116
#3	2.167	.0257	.0252	.6195	.0130	.0704	.1029	.0148

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Zoom In  
Zoom Out

Sample Name: jc85273-1conf Acquired: 4/3/2019 14:23:39 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 2.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Li6707	P_1774
Units	ppm	ppm
Avg	<b>.0003</b>	<b>4.989</b>
Stddev	.0032	.337
%RSD	1230.	6.749
#1	.0033	4.631
#2	.0004	5.039
#3	-.0030	5.299

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>118060.</b>	<b>11223.</b>	<b>4850.2</b>	<b>9498.1</b>
Stddev	355.	68.	23.8	8.9
%RSD	.30050	.60278	.49142	.09341
#1	117660.	11176.	4824.2	9506.2
#2	118190.	11193.	4855.1	9499.5
#3	118340.	11301.	4871.1	9488.6

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Zoom In  
Zoom Out

Sample Name: ccv Acquired: 4/3/2019 14:28:54 Type: QC  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>1.980</b>	<b>1.985</b>	<b>1.996</b>	<b>1.997</b>	<b>1.992</b>	<b>1.940</b>	<b>1.998</b>	<b>1.997</b>	<b>2.441</b>
Stddev	.008	.010	.004	.003	.007	.004	.004	.005	.0001
%RSD	.3985	.5224	.2078	.1591	.3736	.2037	.2019	.2434	.0521
#1	1.989	1.996	1.992	1.995	2.001	1.936	2.003	1.993	2439
#2	1.976	1.982	2.000	2.000	1.987	1.940	1.996	2.003	2442
#3	1.974	1.976	1.997	1.995	1.988	1.944	1.996	1.996	2441

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
 Value  
 Range

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>1.958</b>	<b>2.012</b>	<b>2.002</b>	<b>2.061</b>	<b>2.017</b>	<b>1.992</b>	<b>2.025</b>	<b>39.17</b>	<b>39.72</b>
Stddev	.002	.004	.002	.004	.006	.006	.004	.11	.15
%RSD	.0934	.1809	.1082	.1812	.3212	.2943	.1810	.2792	.3673
#1	1.960	2.008	2.000	2.059	2.015	1.996	2.024	39.30	39.85
#2	1.958	2.015	2.004	2.058	2.024	1.994	2.029	39.09	39.76
#3	1.956	2.012	2.002	2.065	2.012	1.985	2.022	39.13	39.56

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
 Value  
 Range

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>39.84</b>	<b>39.35</b>	<b>39.41</b>	<b>39.20</b>	<b>2.045</b>	<b>2.027</b>	<b>5.076</b>	<b>2.045</b>	<b>1.974</b>
Stddev	.14	.10	.15	.12	.005	.004	.011	.004	.009
%RSD	.3571	.2444	.3716	.3076	.2599	.1790	.2234	.2097	.4304
#1	40.01	39.46	39.58	39.33	2.041	2.024	5.069	2.040	1.983
#2	39.76	39.32	39.38	39.16	2.051	2.031	5.089	2.049	1.970
#3	39.76	39.27	39.29	39.10	2.042	2.026	5.070	2.046	1.968

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
 Value  
 Range

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7.3  
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Zoom In  
Zoom Out

Sample Name: ccv Acquired: 4/3/2019 14:28:54 Type: QC  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>1.976</b>	<b>2.001</b>	<b>1.979</b>	<b>2.000</b>	<b>2.020</b>	<b>1.975</b>	<b>2.002</b>
Stddev	.002	.004	.001	.004	.006	.004	.001
%RSD	.1214	.1810	.0666	.1987	.2940	.2298	.0498
#1	1.979	1.997	1.980	1.997	2.018	1.980	2.002
#2	1.975	2.004	1.978	2.005	2.027	1.971	2.001
#3	1.975	2.002	1.979	1.999	2.016	1.973	2.003

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
 Value  
 Range

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>105280.</b>	<b>10296.</b>	<b>4283.9</b>	<b>8732.7</b>
Stddev	320.	18.	5.4	11.7
%RSD	.30373	.17943	.12578	.13410
#1	105000.	10275.	4289.9	8744.0
#2	105200.	10307.	4279.5	8720.6
#3	105630.	10306.	4282.3	8733.6

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Zoom In  
Zoom Out

Sample Name: ccb Acquired: 4/3/2019 14:41:44 Type: QC  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.0011</b>	<b>F_0008</b>	<b>.0005</b>	<b>.0004</b>	<b>.0006</b>	<b>.0002</b>	<b>.0009</b>	<b>.0003</b>	<b>-.0003</b>
Stddev	.0002	.0001	.0004	.0003	.0003	.0002	.0003	.0004	.0005
%RSD	21.28	17.39	79.10	69.62	42.83	136.0	29.15	153.2	172.8
#1	.0008	.0006	.0008	.0006	.0008	.0002	.0012	.0005	-.0000
#2	.0011	.0009	.0006	.0004	.0007	.0004	.0009	.0004	-.0008
#3	.0013	.0009	.0001	.0001	.0003	-.0001	.0007	-.0002	.0000

Check ? Chk Pass Chk Fail Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
 High Limit  
 Low Limit

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.0006</b>	<b>.0004</b>	<b>.0012</b>	<b>.0000</b>	<b>.0003</b>	<b>.0009</b>	<b>-.0002</b>	<b>.0195</b>	<b>.0187</b>
Stddev	.0003	.0002	.0001	.0004	.0004	.0009	.0012	.0039	.0021
%RSD	40.68	38.49	11.53	1819.	134.4	94.62	780.0	20.18	11.03
#1	.0007	.0006	.0013	.0001	.0003	.0015	.0010	.0239	.0163
#2	.0009	.0005	.0012	.0004	.0007	.0014	-.0001	.0182	.0199
#3	.0004	.0002	.0011	-.0004	-.0001	-.0001	-.0014	.0164	.0199

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
 High Limit  
 Low Limit

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>F_0381</b>	<b>.0197</b>	<b>.0021</b>	<b>.0214</b>	<b>.0005</b>	<b>.0005</b>	<b>.0019</b>	<b>.0002</b>	<b>.0007</b>
Stddev	.0051	.0181	.0147	.0014	.0002	.0001	.0006	.0004	.0001
%RSD	13.50	91.88	687.3	6.496	43.09	29.94	32.27	250.9	14.19
#1	.0346	.0008	.0061	.0207	.0008	.0006	.0020	.0002	.0007
#2	.0358	.0215	.0144	.0206	.0003	.0004	.0013	-.0002	.0007
#3	.0440	.0368	-.0141	.0230	.0005	.0004	.0025	.0005	.0009

Check ? Chk Fail Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
 High Limit  
 Low Limit

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Sample Name: ccb Acquired: 4/3/2019 14:41:44 Type: QC  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0007	.0027	.0005	-.0000	-.0008	.0006	.0022
Stddev	.0001	.0008	.0001	.0019	.0009	.0003	.0005
%RSD	21.18	29.13	11.16	7278.	115.6	52.12	21.56
#1	.0007	.0035	.0006	.0022	-.0001	.0009	.0026
#2	.0005	.0025	.0005	-.0014	-.0005	.0006	.0017
#3	.0008	.0020	.0005	-.0008	-.0019	.0003	.0022
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							
Int. Std.	Y_3600	Y_3710	Y_2243	In2306			
Units	Cts/S	Cts/S	Cts/S	Cts/S			
Avg	111000.	10420.	4448.8	9793.8			
Stddev	319.	43.	7.0	6.8			
%RSD	28768	.41371	.15657	.06955			
#1	111360.	10459.	4444.3	9786.8			
#2	110790.	10374.	4456.8	9800.4			
#3	110840.	10429.	4445.2	9794.3			

Sample Name: mp13751-sd1conf Acquired: 4/3/2019 14:47:15 Type: Unk  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 10.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0556	.0057	.0014	.0820	.1274	.2289	2.639	.2099	-.0125
Stddev	.0007	.0016	.0018	.0079	.0059	.0061	.073	.0222	.0055
%RSD	1.222	27.80	126.6	9.667	4.608	2.666	2.754	10.56	43.67
#1	.0558	.0072	-.0000	.0737	.1211	.2236	2.567	.1854	-.0078
#2	.0548	.0040	.0034	.0827	.1283	.2274	2.636	.2157	-.0112
#3	.0561	.0060	.0009	.0895	.1327	.2356	2.712	.2286	-.0185
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1604	.5900	.0824	.0001	.0431	-.0265	.0013	29.94	10.85
Stddev	.0038	.0520	.0087	.0024	.0078	.0078	.0130	.33	.10
%RSD	2.352	8.813	10.51	1737.	18.03	29.51	994.2	1.088	.8967
#1	.1578	.5333	.0742	-.0021	.0349	-.0193	.0043	29.62	10.74
#2	.1585	.6012	.0914	-.0002	.0441	-.0348	-.0129	29.95	10.93
#3	.1647	.6355	.0814	.0027	.0504	-.0254	.0126	30.27	10.87
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	356.1	5.607	.6524	1.736	.0029	.0068	2.064	.0233	.0312
Stddev	3.9	.321	.1546	.103	.0033	.0016	.151	.0020	.0009
%RSD	1.090	5.724	23.70	5.932	114.7	24.21	7.302	8.443	2.751
#1	351.7	5.727	.5723	1.657	-.0009	.0071	1.897	.0219	.0317
#2	357.8	5.243	.8306	1.853	.0051	.0083	2.103	.0255	.0317
#3	358.9	5.851	.5542	1.699	.0044	.0050	2.191	.0224	.0302
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	.6255	.0261	.0716	.1127	.0073	.0064	5.066		
Stddev	.0189	.0024	.0032	.0052	.0037	.0136	.442		
%RSD	3.026	9.318	4.505	4.647	50.58	211.7	8.717		
#1	.6069	.0288	.0696	.1069	.0076	.0214	4.590		
#2	.6249	.0242	.0698	.1172	.0035	.0030	5.144		
#3	.6448	.0252	.0753	.1140	.0109	-.0052	5.463		

Sample Name: mp13751-sd1conf Acquired: 4/3/2019 14:47:15 Type: Unk  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 10.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	112490.	10616.	4574.9	9730.5
Stddev	623.	30.	49.4	63.7
%RSD	55352	28434	1.0797	.65433
#1	113210.	10641.	4527.3	9670.3
#2	112130.	10582.	4571.7	9724.0
#3	112140.	10624.	4625.9	9797.1

Sample Name: mp13751-ps1 Acquired: 4/3/2019 14:52:36 Type: Unk  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.745	1.670	1.724	1.965	1.795	1.949	4.177	2.077	1.985
Stddev	.002	.004	.003	.002	.004	.001	.003	.002	.0004
%RSD	.0874	.2226	.1633	.1144	.1979	.0598	.0805	.0733	.1811
#1	1.745	1.671	1.722	1.966	1.791	1.949	4.173	2.076	1.986
#2	1.747	1.673	1.727	1.967	1.798	1.948	4.177	2.079	1.987
#3	1.744	1.666	1.722	1.963	1.797	1.950	4.180	2.077	1.981
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.797	2.131	1.808	1.936	1.930	1.681	1.733	51.87	31.66
Stddev	.002	.002	.001	.005	.002	.001	.001	.06	.06
%RSD	.0837	.0915	.0600	.2725	.0815	.0552	.0431	1.249	.2033
#1	1.797	2.133	1.808	1.934	1.929	1.682	1.733	51.88	31.73
#2	1.798	2.129	1.809	1.942	1.929	1.682	1.733	51.93	31.66
#3	1.795	2.130	1.806	1.932	1.932	1.680	1.732	51.80	31.60
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	360.2	25.95	21.86	22.86	1.699	1.657	1.718	1.727	1.707
Stddev	.6	.09	.03	.03	.003	.001	.009	.002	.003
%RSD	.1783	.3492	.1199	.1184	.1644	.0463	.4963	.1275	.1808
#1	360.6	26.04	21.84	22.86	1.698	1.656	1.728	1.726	1.706
#2	360.4	25.93	21.89	22.89	1.702	1.658	1.714	1.729	1.710
#3	359.4	25.86	21.85	22.84	1.697	1.657	1.712	1.725	1.705
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	2.297	1.451	1.756	.0209	.0007	.0015	5.767		
Stddev	.002	.006	.001	.0038	.0016	.0018	.015		
%RSD	.0786	.3918	.0294	17.99	249.5	121.6	2.567		
#1	2.296	1.447	1.755	.0203	.0016	.0033	5.757		
#2	2.295	1.449	1.756	.0175	.0016	.0016	5.784		
#3	2.299	1.458	1.756	.0250	-.0012	-.0004	5.760		



Zoom In  
Zoom Out

Sample Name: mp13751-ps1 Acquired: 4/3/2019 14:52:36 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	125260.	12530.	5029.5	9119.5
Stddev	304.	14.	4.8	9.8
%RSD	.24258	.11176	.09543	.10696

#1	125610.	12538.	5032.8	9130.6
#2	125110.	12539.	5024.0	9112.1
#3	125060.	12514.	5031.8	9115.9

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Zoom In  
Zoom Out

Sample Name: jc85273-1concf Acquired: 4/3/2019 14:57:36 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 2.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0665	.0057	-0.007	.0784	.1392	.2656	2.920	.1986
Stddev	.0003	.0001	.0002	.0024	.0004	.0004	.001	.0055
%RSD	.5036	1.488	32.83	3.119	.2755	.1348	.0453	2.758

#1	.0669	.0057	-0.009	.0799	.1390	.2659	2.919	.2018
#2	.0663	.0057	-0.005	.0756	.1389	.2652	2.921	.1922
#3	.0663	.0056	-0.006	.0798	.1396	.2657	2.921	.2016

Elem	Ag3280	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W -.0099	.1767	.5244	.0774	-0.028	.0357	-0.0085	-0.018
Stddev	.0011	.0010	.0150	.0023	.0006	.0017	.0063	.0031
%RSD	11.50	.5391	2.865	2.920	19.57	4.811	74.00	170.7

#1	-0.0085	.1767	.5325	.0779	-0.034	.0376	-0.125	.0015
#2	-0.105	.1777	.5070	.0749	-0.028	.0350	-0.013	-0.046
#3	-0.106	.1758	.5335	.0794	-0.023	.0344	-0.117	-0.024

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	35.11	12.53	F 403.3	6.542	.9576	2.080	.0035	.0121
Stddev	.07	.12	.4	.052	.0453	.016	.0011	.0010
%RSD	.2100	.9266	.1085	.8016	4.729	.7900	32.27	8.163

#1	35.03	12.40	403.2	6.570	1.004	2.061	.0022	.0132
#2	35.16	12.61	403.7	6.574	.9549	2.090	.0040	.0119
#3	35.14	12.59	402.9	6.481	.9137	2.089	.0043	.0113

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.287	.0225	.0366	.7019	.0476	.0842	.0963	-0.016
Stddev	.033	.0008	.0004	.0024	.0048	.0005	.0028	.0003
%RSD	1.458	3.637	1.148	3.358	10.19	5.684	2.886	15.60

#1	2.323	.0216	.0364	.7032	.0525	.0843	.0937	-0.019
#2	2.257	.0226	.0363	.7033	.0475	.0847	.0960	-0.015
#3	2.281	.0232	.0371	.6992	.0428	.0838	.0992	-0.015

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7.3  
7

Zoom In  
Zoom Out

Sample Name: jc85273-1concf Acquired: 4/3/2019 14:57:36 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 2.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Li6707	P_1774
Units	ppm	ppm
Avg	.0016	4.603
Stddev	.0027	.121
%RSD	164.2	2.633

#1	-0.014	4.664
#2	.0036	4.463
#3	.0028	4.681

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	119770.	11591.	4886.5	9644.5
Stddev	247.	41.	115.5	228.3
%RSD	.20625	.35721	2.3636	2.3674

#1	120010.	11559.	4819.5	9518.0
#2	119800.	11577.	5019.8	9908.1
#3	119510.	11638.	4820.1	9507.5

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Zoom In  
Zoom Out

Sample Name: mp13751-s1 Acquired: 4/3/2019 15:02:51 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 5.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.045	1.919	1.901	1.984	2.071	2.094	4.447	2.136	.2347
Stddev	.079	.074	.001	.004	.002	.007	.012	.005	.0050
%RSD	3.879	3.842	.0530	.1853	.0854	.3192	.2762	.2302	2.122

#1	2.027	1.903	1.902	1.982	2.071	2.091	4.446	2.134	.2352
#2	1.976	1.854	1.901	1.981	2.070	2.089	4.435	2.133	.2295
#3	2.132	1.999	1.900	1.988	2.073	2.101	4.459	2.142	.2395

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.043	2.497	1.936	2.027	1.996	1.802	1.458	109.9	46.39
Stddev	.000	.004	.013	.007	.003	.004	.005	4.3	1.75
%RSD	.0122	.1665	.6680	.3233	.1417	.2202	.3706	3.941	3.770

#1	2.044	2.498	1.928	2.020	1.993	1.803	1.454	109.1	46.08
#2	2.043	2.482	1.951	2.028	1.997	1.797	1.455	106.0	44.81
#3	2.043	2.500	1.930	2.033	1.999	1.805	1.464	114.5	48.27

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	498.9	36.15	27.75	27.76	1.805	1.957	3.797	1.980	1.959
Stddev	19.2	1.33	.98	1.02	.003	.004	.022	.004	.074
%RSD	3.846	3.665	3.523	3.687	.1551	.2109	.5909	.2199	3.776

#1	494.3	35.75	27.49	27.56	1.808	1.952	3.801	1.981	1.942
#2	482.5	35.07	26.93	26.85	1.803	1.958	3.817	1.975	1.895
#3	520.0	37.63	28.83	28.87	1.805	1.961	3.773	1.983	2.040

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.528	1.783	1.941	0.303	-0.071	0.127	6.765
Stddev	.010	.007	.005	.0153	.0018	.0060	.025
%RSD	.4013	.3991	.2543	50.61	25.72	47.38	3684

#1	2.529	1.783	1.939	.0227	-0.072	.0075	6.746
#2	2.518	1.776	1.937	.0480	-0.053	.0193	6.756
#3	2.538	1.790	1.947	.0202	-0.090	.0112	6.793

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Sample Name: mp13751-s1 Acquired: 4/3/2019 15:02:51 Type: Unk  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 5.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	112810.	10717.	4565.6	9368.5
Stddev	633.	371.	1.5	12.9
%RSD	.56078	3.4615	.03202	.13820
#1	112590.	10711.	4565.1	9377.6
#2	113530.	11091.	4567.2	9374.2
#3	112330.	10349.	4564.3	9353.7

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Sample Name: mp13751-s2 Acquired: 4/3/2019 15:07:55 Type: Unk  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 5.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>2.034</b>	<b>1.868</b>	<b>1.886</b>	<b>1.946</b>	<b>2.042</b>	<b>2.018</b>	<b>4.708</b>	<b>2.084</b>	<b>2.300</b>
Stddev	.003	.002	.005	.002	.003	.004	.007	.005	.0029
%RSD	.1592	.1165	.2865	.1117	.1619	.1821	.1449	.2588	1.269
#1	2.037	1.871	1.880	1.943	2.045	2.020	4.713	2.083	2.320
#2	2.036	1.868	1.888	1.947	2.039	2.014	4.700	2.080	2.315
#3	2.031	1.866	1.890	1.947	2.042	2.020	4.710	2.090	2.267
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>2.025</b>	<b>2.428</b>	<b>1.899</b>	<b>1.999</b>	<b>1.965</b>	<b>1.788</b>	<b>1.443</b>	<b>102.6</b>	<b>54.04</b>
Stddev	.001	.004	.004	.004	.003	.004	.002	.2	.26
%RSD	.0629	.1720	.2172	.1797	.1687	.2380	.1207	.1925	.4898
#1	2.026	2.424	1.903	1.995	1.961	1.793	1.445	102.7	54.16
#2	2.023	2.426	1.898	2.000	1.966	1.784	1.442	102.7	54.22
#3	2.025	2.432	1.895	2.002	1.967	1.788	1.441	102.4	53.74
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>425.2</b>	<b>40.85</b>	<b>27.43</b>	<b>27.18</b>	<b>1.791</b>	<b>1.934</b>	<b>3.879</b>	<b>1.967</b>	<b>1.932</b>
Stddev	.8	.22	.30	.08	.014	.006	.006	.005	.003
%RSD	.1866	.5471	1.097	.3003	.7694	.3193	.1460	.2326	.1532
#1	425.0	40.70	27.71	27.13	1.782	1.936	3.885	1.965	1.933
#2	426.1	41.10	27.46	27.27	1.783	1.927	3.873	1.963	1.935
#3	424.5	40.73	27.11	27.13	1.806	1.939	3.880	1.972	1.929
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	<b>2.456</b>	<b>1.723</b>	<b>1.911</b>	<b>.0191</b>	<b>.0008</b>	<b>.0172</b>	<b>6.144</b>		
Stddev	.004	.004	.005	.0124	.0024	.0053	.008		
%RSD	.1422	.2005	.2832	64.91	289.1	30.96	.1248		
#1	2.457	1.723	1.915	.0053	.0003	.0147	6.151		
#2	2.452	1.720	1.905	.0292	-.0012	.0136	6.136		
#3	2.458	1.727	1.913	.0229	.0035	.0233	6.146		

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Sample Name: mp13751-s2 Acquired: 4/3/2019 15:07:55 Type: Unk  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 5.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	112350.	10828.	4544.3	9356.0
Stddev	238.	72.	5.4	5.0
%RSD	.21186	.66606	.11829	.05363
#1	112170.	10844.	4545.5	9357.7
#2	112620.	10749.	4549.0	9359.9
#3	112250.	10891.	4538.4	9350.3

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Sample Name: jc85273-1 Acquired: 4/3/2019 15:12:58 Type: Unk  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 5.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.0740</b>	<b>.0057</b>	<b>-.0003</b>	<b>.0816</b>	<b>.1492</b>	<b>.2829</b>	<b>3.143</b>	<b>.2088</b>	<b>-.0101</b>
Stddev	.0016	.0005	.0004	.0006	.0016	.0033	.012	.0016	.0009
%RSD	2.220	8.687	113.5	.6881	1.068	1.169	.3853	.7631	8.707
#1	.0731	.0058	-.0007	.0809	.1485	.2865	3.147	.2074	-.0103
#2	.0758	.0051	-.0001	.0820	.1510	.2824	3.129	.2105	-.0108
#3	.0729	.0061	-.0001	.0819	.1480	.2799	3.152	.2084	-.0091
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.1912</b>	<b>.5904</b>	<b>.0812</b>	<b>-.0030</b>	<b>.0351</b>	<b>-.0069</b>	<b>-.0045</b>	<b>38.97</b>	<b>13.70</b>
Stddev	.0016	.0024	.0065	.0022	.0008	.0084	.0065	.17	.09
%RSD	.8257	.4074	7.940	75.13	2.239	121.4	145.2	.4261	.6221
#1	.1927	.5897	.0769	-.0017	.0357	.0004	-.0089	39.11	13.78
#2	.1896	.5930	.0887	-.0055	.0354	-.0160	-.0076	39.01	13.71
#3	.1914	.5884	.0782	-.0016	.0342	-.0050	.0030	38.79	13.61
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>440.2</b>	<b>7.053</b>	<b>1.031</b>	<b>2.253</b>	<b>.0020</b>	<b>.0100</b>	<b>3.847</b>	<b>.0222</b>	<b>.0402</b>
Stddev	1.7	.118	.115	.045	.0031	.0003	.193	.0007	.0011
%RSD	.3806	1.677	11.17	2.018	156.0	2.554	5.017	3.240	2.705
#1	441.5	6.957	1.093	2.279	.0019	.0101	4.043	.0215	.0401
#2	440.9	7.185	1.102	2.200	.0051	.0102	3.841	.0220	.0414
#3	438.3	7.018	.8981	2.278	-.0010	.0097	3.657	.0230	.0392
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	<b>.8036</b>	<b>.0309</b>	<b>.0906</b>	<b>.112</b>	<b>-.0054</b>	<b>.0028</b>	<b>5.019</b>		
Stddev	.0372	.0024	.0006	.0066	.0056	.0053	.033		
%RSD	4.624	7.695	.6613	5.970	104.1	189.2	.6616		
#1	.8088	.0327	.0908	.1035	-.0018	-.0025	5.028		
#2	.7642	.0319	.0899	.1150	-.0118	.0080	5.047		
#3	.8379	.0282	.0911	.1151	-.0025	.0029	4.982		

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Sample Name: jc85273-1 Acquired: 4/3/2019 15:12:58 Type: Unk Method: SGS 3(v260) Mode: CONC Corr. Factor: 5.000000 User: admin Custom ID1: Custom ID2: Custom ID3: Comment:

Table with 5 columns: Int. Std., Y\_3600, Y\_3710, Y\_2243, In2306. Rows for Units, Avg, Stddev, %RSD, and #1-3.

Sample Name: mp13751-sd1 Acquired: 4/3/2019 15:18:16 Type: Unk Method: SGS 3(v260) Mode: CONC Corr. Factor: 25.000000 User: admin Custom ID1: Custom ID2: Custom ID3: Comment:

Table with 11 columns: Elem, Ba4554, Be3130, Cd2288, Co2286, Cr2677, Cu3247, Mn2576, Ni2316, Ag3280. Rows for Units, Avg, Stddev, %RSD, and #1-3.

7.3 7

Sample Name: mp13751-sd1 Acquired: 4/3/2019 15:18:16 Type: Unk Method: SGS 3(v260) Mode: CONC Corr. Factor: 25.000000 User: admin Custom ID1: Custom ID2: Custom ID3: Comment:

Table with 5 columns: Int. Std., Y\_3600, Y\_3710, Y\_2243, In2306. Rows for Units, Avg, Stddev, %RSD, and #1-3.

Sample Name: jc85402-1 Acquired: 4/3/2019 15:23:41 Type: Unk Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000 User: admin Custom ID1: Custom ID2: Custom ID3: Comment:

Table with 11 columns: Elem, Ba4554, Be3130, Cd2288, Co2286, Cr2677, Cu3247, Mn2576, Ni2316. Rows for Units, Avg, Stddev, %RSD, and #1-3.

Sample Name: jc85402-1 Acquired: 4/3/2019 15:23:41 Type: Unk  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Elem	Li6707	P_1774		
Units	ppm	ppm		
Avg	<b>0667</b>	<b>3.154</b>		
Stddev	.0031	.012		
%RSD	4.616	.3863		
#1	.0691	3.160		
#2	.0632	3.140		
#3	.0678	3.163		
Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>103400.</b>	<b>10996.</b>	<b>4152.3</b>	<b>7852.5</b>
Stddev	286.	339.	3.4	4.9
%RSD	.27661	3.0864	.08102	.06259
#1	103280.	10725.	4156.1	7856.9
#2	103190.	11377.	4151.4	7847.2
#3	103720.	10887.	4149.5	7853.3

Sample Name: jc85402-1 Acquired: 4/3/2019 15:29:01 Type: Unk  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 5.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>4588</b>	<b>.0065</b>	<b>.0001</b>	<b>0541</b>	<b>.1882</b>	<b>.1402</b>	<b>3.588</b>	<b>.1204</b>	<b>-.0025</b>
Stddev	.0098	.0001	.0002	.0025	.0031	.0002	.019	.0014	.0003
%RSD	2.140	1.877	222.9	4.684	1.621	.1424	.5230	1.191	12.05
#1	.4495	.0065	-.0000	.0528	.1850	.1403	3.567	.1203	-.0022
#2	.4578	.0064	.0003	.0525	.1884	.1400	3.599	.1218	-.0025
#3	.4690	.0066	-.0000	.0570	.1911	.1404	3.600	.1190	-.0028
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>2685</b>	<b>.5331</b>	<b>.0739</b>	<b>-.0025</b>	<b>.0718</b>	<b>-.0018</b>	<b>.0015</b>	<b>82.19</b>	<b>665.3</b>
Stddev	.0016	.0013	.0030	.0006	.0016	.0040	.0116	.12	10.0
%RSD	.5784	.2465	4.066	22.31	2.182	217.2	784.4	1.124	1.499
#1	.2671	.5318	.0717	-.0022	.0723	-.0017	-.0099	81.23	655.6
#2	.2702	.5330	.0773	-.0022	.0731	-.0059	.0011	82.27	664.6
#3	.2683	.5344	.0726	-.0032	.0701	.0021	.0132	83.07	675.5
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>215.0</b>	<b>224.2</b>	<b>10.36</b>	<b>3.648</b>	<b>.0489</b>	<b>.0229</b>	<b>1.763</b>	<b>.0269</b>	<b>1.438</b>
Stddev	3.4	3.5	.18	.060	.0013	.0004	.003	.0008	.028
%RSD	1.600	1.576	1.708	1.651	2.572	1.747	.1864	2.790	1.925
#1	211.8	220.8	10.21	3.614	.0484	.0233	1.764	.0276	1.411
#2	214.6	223.9	10.32	3.612	.0503	.0225	1.759	.0261	1.437
#3	218.6	227.9	10.56	3.717	.0479	.0230	1.766	.0271	1.466
Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	<b>4.030</b>	<b>.0193</b>	<b>.0758</b>	<b>12.92</b>	<b>.0076</b>	<b>.0628</b>	<b>3.350</b>		
Stddev	.019	.0045	.0008	.05	.0045	.0019	.015		
%RSD	.4683	23.25	.9924	4.006	59.74	3.025	.4436		
#1	4.008	.0153	.0762	12.86	.0024	.0621	3.333		
#2	4.040	.0185	.0749	12.94	.0104	.0613	3.361		
#3	4.042	.0241	.0762	12.95	.0099	.0649	3.357		

Sample Name: jc85402-1 Acquired: 4/3/2019 15:29:01 Type: Unk  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 5.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>107100.</b>	<b>10420.</b>	<b>4303.6</b>	<b>8787.1</b>
Siddev	265.	46.	5.4	9.2
%RSD	.24698	.44134	.12657	.10481
#1	107230.	10368.	4297.9	8777.1
#2	106790.	10453.	4308.7	8795.3
#3	107260.	10440.	4304.2	8788.8

Sample Name: ccv Acquired: 4/3/2019 15:34:19 Type: QC  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>1.976</b>	<b>1.972</b>	<b>2.002</b>	<b>1.992</b>	<b>1.993</b>	<b>1.947</b>	<b>2.001</b>	<b>2.000</b>	<b>2.447</b>
Stddev	.003	.003	.006	.007	.005	.003	.002	.006	.0008
%RSD	.1509	.1676	.3060	.3788	.2313	.1347	.1215	.3030	.3219
#1	1.973	1.969	1.996	1.985	1.998	1.949	2.003	1.995	.2454
#2	1.979	1.975	2.008	2.000	1.992	1.944	2.000	2.007	.2447
#3	1.977	1.970	2.003	1.990	1.989	1.947	1.999	1.997	.2439
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>1.964</b>	<b>2.013</b>	<b>2.008</b>	<b>2.067</b>	<b>2.013</b>	<b>1.994</b>	<b>2.026</b>	<b>39.10</b>	<b>39.61</b>
Stddev	.002	.006	.009	.007	.006	.003	.009	.11	.09
%RSD	.1042	.2881	.4251	.3576	.2804	.1311	.4471	.2767	.2392
#1	1.966	2.012	2.000	2.066	2.010	1.992	2.016	38.98	39.51
#2	1.962	2.020	2.017	2.074	2.020	1.997	2.034	39.19	39.69
#3	1.964	2.008	2.008	2.060	2.010	1.993	2.029	39.14	39.63
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>39.50</b>	<b>38.85</b>	<b>39.12</b>	<b>39.06</b>	<b>2.043</b>	<b>2.033</b>	<b>5.083</b>	<b>2.052</b>	<b>1.967</b>
Stddev	.14	.13	.04	.06	.011	.007	.023	.004	.004
%RSD	.3597	.3346	.0988	.1647	.5216	.3707	.4473	.1846	.1838
#1	39.36	38.89	39.08	38.99	2.031	2.025	5.056	2.049	1.964
#2	39.65	38.96	39.13	39.09	2.049	2.040	5.097	2.056	1.971
#3	39.48	38.71	39.16	39.11	2.049	2.032	5.095	2.050	1.968
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: 4/3/2019 15:34:19 Type: QC  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>1.985</b>	<b>2.002</b>	<b>1.987</b>	<b>2.009</b>	<b>2.021</b>	<b>1.965</b>	<b>2.015</b>
Stddev	.002	.005	.002	.011	.009	.003	.006
%RSD	.1167	.2661	.1085	.5602	.4604	.1459	.2898
#1	1.988	1.996	1.988	2.007	2.011	1.962	2.012
#2	1.983	2.007	1.985	2.021	2.024	1.965	2.021
#3	1.985	2.003	1.988	1.998	2.028	1.968	2.011

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
 Value High Limit  
 Range Low Limit

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>105240.</b>	<b>10325.</b>	<b>4271.6</b>	<b>8721.7</b>
Stddev	166.	62.	14.8	27.6
%RSD	.15767	.59678	.34705	.31678

#1	105060.	10355.	4285.4	8740.0
#2	105270.	10254.	4256.0	8689.9
#3	105390.	10366.	4273.5	8735.1

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Zoom In  
Zoom Out

Sample Name: ccb Acquired: 4/3/2019 15:39:21 Type: QC  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.0012</b>	<b>F .0012</b>	<b>.0005</b>	<b>.0007</b>	<b>.0008</b>	<b>.0004</b>	<b>.0012</b>	<b>.0005</b>	<b>-.0002</b>
Stddev	.0001	.0001	.0000	.0002	.0006	.0001	.0002	.0001	.0003
%RSD	7.198	4.453	5.263	23.41	73.87	31.21	20.53	27.01	150.4
#1	.0013	.0011	.0005	.0009	.0008	.0005	.0014	.0004	.0000
#2	.0011	.0012	.0005	.0006	.0013	.0005	.0012	.0006	-.0006
#3	.0013	.0012	.0006	.0006	.0002	.0003	.0010	.0004	-.0001

Check ? Chk Pass Chk Fail Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
 Value High Limit  
 Range Low Limit

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.0013</b>	<b>.0006</b>	<b>-.0002</b>	<b>.0006</b>	<b>.0003</b>	<b>-.0000</b>	<b>.0002</b>	<b>F .0307</b>	<b>.1003</b>
Stddev	.0004	.0001	.0009	.0005	.0002	.0010	.0004	.0101	.0014
%RSD	35.05	13.60	560.5	76.46	72.66	5598.	166.7	32.89	1.445
#1	.0017	.0007	.0005	.0007	.0003	-.0011	.0006	.0379	.1013
#2	.0013	.0005	.0001	.0001	.0001	.0008	.0000	.0351	.1010
#3	.0008	.0006	-.0011	.0011	.0004	-.0002	-.0000	.0192	.0986

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Fail Chk Pass  
 Value High Limit  
 Range Low Limit

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sr1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>F .0529</b>	<b>.0423</b>	<b>.0405</b>	<b>.0285</b>	<b>.0009</b>	<b>.0010</b>	<b>.0019</b>	<b>.0009</b>	<b>F .0013</b>
Stddev	.0108	.0176	.0312	.0087	.0003	.0001	.0013	.0001	.0001
%RSD	20.47	41.59	76.91	30.35	36.17	10.43	68.80	6.019	7.297
#1	.0405	.0616	.0647	.0381	.0012	.0011	.0009	.0009	.0013
#2	.0578	.0272	.0053	.0262	.0009	.0009	.0034	.0008	.0014
#3	.0603	.0380	.0516	.0213	.0006	.0009	.0014	.0009	.0013

Check ? Chk Fail Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Fail  
 Value High Limit  
 Range Low Limit

#1	.0100								.0010
#2	-.0100								-.0010

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7.3  
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Zoom In  
Zoom Out

Sample Name: ccb Acquired: 4/3/2019 15:39:21 Type: QC  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.0009</b>	<b>.0035</b>	<b>.0007</b>	<b>.0009</b>	<b>-.0006</b>	<b>.0016</b>	<b>.0029</b>
Stddev	.0002	.0003	.0001	.0034	.0003	.0005	.0006
%RSD	22.96	7.593	9.671	362.1	42.32	33.35	21.47
#1	.0011	.0038	.0006	.0040	-.0007	.0011	.0030
#2	.0008	.0032	.0008	-.0027	-.0008	.0022	.0022
#3	.0007	.0036	.0007	.0016	-.0003	.0015	.0034

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
 Value High Limit  
 Range Low Limit

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>111620.</b>	<b>10420.</b>	<b>4433.4</b>	<b>9759.1</b>
Stddev	381.	3.	11.3	27.9
%RSD	.34153	.02957	.25507	.28606

#1	111190.	10422.	4437.9	9768.5
#2	111770.	10416.	4420.5	9727.7
#3	111910.	10421.	4441.7	9781.1

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Zoom In  
Zoom Out

Sample Name: jc85419-1 Acquired: 4/3/2019 15:44:51 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.5840</b>	<b>.0043</b>	<b>.0026</b>	<b>.0456</b>	<b>.2608</b>	<b>.3384</b>	<b>1.920</b>	<b>.1451</b>	<b>.0045</b>
Stddev	.0016	.0002	.0002	.0004	.0006	.0006	.001	.0007	.0007
%RSD	.2694	3.749	8.935	.9134	2.450	.1639	.0697	.4541	14.66
#1	.5850	.0043	.0024	.0454	.2602	.3380	1.920	.1459	.0037
#2	.5821	.0044	.0029	.0452	.2614	.3390	1.918	.1449	.0049
#3	.5847	.0041	.0026	.0460	.2607	.3381	1.921	.1446	.0048

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.2569</b>	<b>.5973</b>	<b>.0424</b>	<b>-.0003</b>	<b>.4519</b>	<b>.0013</b>	<b>.0007</b>	<b>85.14</b>	<b>180.3</b>
Stddev	.0009	.0010	.0007	.0007	.0023	.0015	.0015	.09	.2
%RSD	.3673	.1598	1.540	220.6	50.10	113.8	212.6	.1021	.1108
#1	.2561	.5974	.0427	-.0008	.4515	.0023	-.0010	85.12	180.5
#2	.2566	.5981	.0417	-.0008	.4499	.0019	.0013	85.07	180.1
#3	.2579	.5962	.0429	.0005	.4544	-.0004	.0017	85.24	180.4

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sr1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>122.6</b>	<b>36.40</b>	<b>18.67</b>	<b>9.032</b>	<b>.2896</b>	<b>.0062</b>	<b>2.128</b>	<b>.0527</b>	<b>.9001</b>
Stddev	.2	.08	.05	.020	.0014	.0002	.007	.0003	.0033
%RSD	.1851	.2086	.2610	.2184	.4942	3.211	.3316	.5897	.3701
#1	122.9	36.48	18.71	9.045	.2880	.0060	2.130	.0530	.9024
#2	122.4	36.38	18.62	9.010	.2900	.0064	2.134	.0524	.8963
#3	122.6	36.33	18.67	9.043	.2907	.0063	2.120	.0526	.9016

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>3.496</b>	<b>.0087</b>	<b>.0280</b>	<b>15.18</b>	<b>.0051</b>	<b>.1232</b>	<b>3.619</b>
Stddev	.002	.0004	.0002	.01	.0014	.0018	.005
%RSD	.0495	4.228	.6236	.0497	26.76	1.482	.1276
#1	3.494	.0091	.0278	15.19	.0066	.1219	3.614
#2	3.496	.0086	.0281	15.17	.0042	.1253	3.623
#3	3.497	.0084	.0280	15.18	.0044	.1225	3.619

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Sample Name: jc85419-1 Acquired: 4/3/2019 15:44:51 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	110220.	11113.	4461.0	8567.8
Stddev	.222	.20	3.2	6.4
%RSD	.20121	.18043	.07223	.07475

#1	110310.	11094.	4462.0	8567.8
#2	110390.	11110.	4457.4	8561.5
#3	109970.	11134.	4463.6	8574.3

Sample Name: jc85419-2 Acquired: 4/3/2019 15:53:48 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5088	.0052	.0005	.0673	1.878	3844	F 13.09	.1551
Stddev	.0010	.0001	.0002	.0002	.008	.0012	.04	.0002
%RSD	.1912	1.050	39.33	.2823	4.394	.3224	.3318	.1162

#1	.5096	.0052	.0005	.0671	1.885	.3833	13.05	.1548
#2	.5077	.0052	.0003	.0673	1.879	.3843	13.13	.1552
#3	.5089	.0051	.0006	.0675	1.869	.3858	13.07	.1552

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W -.0045	.4637	.5664	.1021	-0.012	2.290	.0009	.0061
Stddev	.0007	.0007	.0009	.0011	.0009	.0013	.0013	.0014
%RSD	15.11	1.426	1.659	1.110	77.31	.5692	142.9	22.91

#1	-.0047	.4629	.5672	.1009	-.0003	2.289	-.0004	.0054
#2	-.0050	.4638	.5666	.1025	-.0010	2.304	.0009	.0077
#3	-.0037	.4642	.5654	.1030	-.0021	2.278	.0022	.0052

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	98.79	157.9	F 257.4	54.20	6.511	4.725	2.358	.0154
Stddev	.14	.2	.4	.09	.035	.009	.0009	.0003
%RSD	.1373	.1423	.1465	.1697	5.324	.1932	.3727	1.658

#1	98.92	158.1	257.5	54.27	6.543	4.731	2.351	.0154
#2	98.65	157.6	257.0	54.09	6.517	4.715	2.368	.0156
#3	98.81	158.0	257.7	54.23	6.474	4.730	2.354	.0151

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.828	.0370	.4086	5.374	.0297	1.541	8.216	.0114
Stddev	.006	.0005	.0016	.010	.0016	.0003	.037	.0007
%RSD	.1998	1.280	.3800	.1906	5.398	.1700	4.558	5.892

#1	2.823	.0365	.4096	5.383	.0297	1.543	8.173	.0106
#2	2.834	.0374	.4068	5.377	.0281	1.543	8.236	.0119
#3	2.826	.0370	.4093	5.363	.0313	1.538	8.240	.0116

7.3  
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Sample Name: jc85419-2 Acquired: 4/3/2019 15:53:48 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Li6707	P_1774
Units	ppm	ppm
Avg	.1057	3.493
Stddev	.0007	.013
%RSD	.7006	.3718

#1	.1052	3.478
#2	.1065	3.500
#3	.1052	3.500

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	108160.	10881.	4323.8	8624.0
Stddev	326.	49.	2.5	5.8
%RSD	.30146	.44866	.05732	.06719

#1	107900.	10901.	4325.3	8625.1
#2	108060.	10916.	4325.1	8629.1
#3	108520.	10825.	4320.9	8617.7

Sample Name: jc85419-2conff Acquired: 4/3/2019 15:59:04 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 2.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4357	.0047	.0003	.0750	1.831	.3619	12.96	.1719
Stddev	.0551	.0003	.0002	.0041	.068	.0157	.51	.0088
%RSD	12.64	6.314	93.94	5.477	3.691	4.337	3.898	5.146

#1	.4278	.0044	.0001	.0704	1.763	.3489	12.48	.1617
#2	.3849	.0048	.0001	.0782	1.832	.3573	12.92	.1777
#3	.4942	.0049	.0005	.0765	1.899	.3793	13.49	.1763

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	W -.0086	.4644	.6488	.1089	-0.031	2.530	-0.040	.0139
Stddev	.0061	.0173	.0311	.0047	.0079	.0134	.0054	.0020
%RSD	70.38	3.735	4.797	4.315	253.0	5.280	132.4	14.08

#1	-.0076	.4666	.6138	.1036	.0002	2.377	.0009	.0153
#2	-.0151	.4654	.6733	.1125	-.0121	2.624	-.0097	.0117
#3	-.0031	.4812	.6592	.1105	.0026	2.588	-.0033	.0148

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	84.30	137.6	229.7	47.03	5.510	4.018	2.603	.0170
Stddev	10.68	17.3	28.9	5.96	.698	.468	.0139	.0009
%RSD	12.68	12.54	12.59	12.67	12.66	11.64	5.335	5.071

#1	83.04	135.5	226.7	46.45	5.375	3.946	2.448	.0162
#2	74.29	121.5	202.4	41.39	4.890	3.591	2.715	.0169
#3	95.55	155.8	260.0	53.27	6.266	4.518	2.647	.0179

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.101	.0424	.3502	5.176	.0345	1.454	9.089	.0116
Stddev	.137	.0014	.0443	.208	.0014	.0063	.490	.0054
%RSD	4.407	3.320	12.64	4.012	4.161	4.335	5.391	46.46

#1	2.953	.0410	.3439	4.964	.0331	1.396	8.528	.0078
#2	3.222	.0438	.3094	5.185	.0359	1.445	9.432	.0177
#3	3.129	.0425	.3973	5.379	.0344	1.521	9.308	.0092

Sample Name: jc85419-2conf Acquired: 4/3/2019 15:59:04 Type: Unk  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 2.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Elem	Li6707	P_1774		
Units	ppm	ppm		
Avg	<b>.0881</b>	<b>3.884</b>		
Stddev	.0101	.201		
%RSD	11.48	5.171		
#1	.0858	3.655		
#2	.0793	4.027		
#3	.0991	3.971		
Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	108430.	10402.	4289.1	8811.4
Stddev	197.	960.	97.8	191.4
%RSD	.18202	9.2310	2.2794	2.1718
#1	108460.	9992.5	4344.6	8930.8
#2	108610.	11499.	4176.2	8590.6
#3	108220.	9714.7	4346.5	8912.6

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Sample Name: jc85419-3 Acquired: 4/3/2019 16:04:25 Type: Unk  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.4292</b>	<b>.0043</b>	<b>.0006</b>	<b>.0348</b>	<b>.3648</b>	<b>.4587</b>	<b>.7453</b>	<b>.0879</b>	<b>.0124</b>
Stddev	.0010	.0000	.0002	.0008	.0005	.0019	.0010	.0017	.0002
%RSD	.2427	.3684	28.22	2.326	.1349	.4167	.1372	1.962	1.359
#1	.4302	.0043	.0004	.0354	.3646	.4607	.7461	.0894	.0125
#2	.4281	.0043	.0007	.0351	.3644	.4582	.7457	.0882	.0123
#3	.4293	.0043	.0007	.0338	.3653	.4570	.7442	.0860	.0122
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.3520</b>	<b>.3443</b>	<b>.2692</b>	<b>-.0007</b>	<b>.5023</b>	<b>.0113</b>	<b>.1320</b>	<b>78.14</b>	<b>43.81</b>
Stddev	.0009	.0055	.0041	.0012	.0068	.0006	.0018	.08	.09
%RSD	.2474	1.595	1.532	175.0	1.349	5.337	1.356	1.063	.2027
#1	.3530	.3474	.2731	.0004	.5077	.0120	.1338	78.15	43.92
#2	.3516	.3475	.2697	-.0021	.5045	.0110	.1318	78.22	43.77
#3	.3514	.3380	.2649	-.0004	.4947	.0109	.1303	78.06	43.76
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sr1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>135.6</b>	<b>16.00</b>	<b>6.041</b>	<b>3.759</b>	<b>.0600</b>	<b>.0139</b>	<b>2.138</b>	<b>.0688</b>	<b>.1766</b>
Stddev	.6	.11	.032	.009	.0018	.0003	.043	.0009	.0003
%RSD	.4425	.6588	.5332	.2276	3.072	1.892	2.029	1.337	1.444
#1	136.2	16.09	6.047	3.758	.0607	.0142	2.168	.0697	.1767
#2	135.0	15.88	6.006	3.751	.0613	.0138	2.158	.0690	.1763
#3	135.7	16.02	6.070	3.768	.0579	.0137	2.088	.0679	.1767
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	<b>8.255</b>	<b>.0084</b>	<b>.0765</b>	<b>6.753</b>	<b>.0029</b>	<b>.1010</b>	<b>4.384</b>		
Stddev	.017	.0003	.0003	.149	.0005	.0007	.073		
%RSD	.2092	3.339	4.237	2.207	18.70	.6538	1.676		
#1	8.272	.0085	.0768	6.858	.0023	.1002	4.431		
#2	8.256	.0080	.0763	6.817	.0033	.1013	4.423		
#3	8.238	.0085	.0762	6.582	.0032	.1014	4.300		

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7.3  
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Sample Name: jc85419-3 Acquired: 4/3/2019 16:04:25 Type: Unk  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	110730.	10994.	4531.1	9140.7
Stddev	50.	86.	60.4	120.3
%RSD	.04498	.77885	1.3326	1.3158
#1	110730.	10910.	4495.7	9066.9
#2	110680.	11081.	4496.7	9075.7
#3	110780.	10992.	4600.8	9279.5

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Sample Name: jc85419-3 Acquired: 4/3/2019 16:09:34 Type: Unk  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 2.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>4.362</b>	<b>.0044</b>	<b>.0009</b>	<b>.0348</b>	<b>.3679</b>	<b>.4575</b>	<b>.7566</b>	<b>.0888</b>	<b>.0135</b>
Stddev	.0002	.0002	.0001	.0002	.0009	.0012	.0018	.0004	.0009
%RSD	.0497	5.406	15.51	.5514	.2411	.2538	.2388	.4918	6.409
#1	4.362	.0043	.0007	.0346	.3669	.4574	.7586	.0890	.0131
#2	4.360	.0046	.0009	.0350	.3684	.4587	.7560	.0891	.0129
#3	4.364	.0041	.0010	.0348	.3685	.4564	.7551	.0883	.0145
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.3553</b>	<b>.3587</b>	<b>.2739</b>	<b>-.0017</b>	<b>.5087</b>	<b>.0100</b>	<b>.1336</b>	<b>78.90</b>	<b>44.86</b>
Stddev	.0008	.0005	.0020	.0017	.0014	.0044	.0012	.18	.13
%RSD	.2231	.1309	.7452	104.1	.2708	44.27	.9192	.2290	.2821
#1	.3562	.3590	.2737	-.0012	.5095	.0122	.1347	79.10	44.99
#2	.3547	.3581	.2719	-.0036	.5071	.0128	.1323	78.74	44.74
#3	.3550	.3589	.2760	-.0002	.5095	.0049	.1340	78.87	44.85
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sr1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>141.0</b>	<b>16.66</b>	<b>6.152</b>	<b>3.825</b>	<b>.0600</b>	<b>.0147</b>	<b>2.218</b>	<b>.0710</b>	<b>.1815</b>
Stddev	.2	.12	.062	.024	.0003	.0001	.013	.0009	.0009
%RSD	.1154	.6933	1.010	.6294	.5282	.8551	.6039	1.203	.4736
#1	140.9	16.65	6.092	3.839	.0601	.0146	2.229	.0716	.1805
#2	141.0	16.55	6.149	3.797	.0596	.0147	2.204	.0700	.1817
#3	141.2	16.78	6.216	3.839	.0603	.0149	2.222	.0713	.1822
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	<b>8.320</b>	<b>.0106</b>	<b>.0769</b>	<b>6.855</b>	<b>.0006</b>	<b>.0997</b>	<b>4.532</b>		
Stddev	.019	.0015	.0006	.022	.0015	.0015	.009		
%RSD	.2248	14.00	.8115	.3287	234.5	1.538	.2093		
#1	8.342	.0111	.0764	6.865	-.0009	.0988	4.543		
#2	8.307	.0089	.0766	6.829	.0021	.0987	4.524		
#3	8.311	.0118	.0776	6.870	.0007	.1014	4.530		

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Sample Name: jc85419-3 Acquired: 4/3/2019 16:09:34 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 2.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	110490.	10628.	4471.0	9303.1
Stddev	330.	42.	4.4	5.3
%RSD	.29909	.39084	.09916	.05665
#1	110150.	10633.	4474.1	9308.8
#2	110510.	10667.	4473.0	9298.4
#3	110810.	10584.	4465.9	9302.2

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Sample Name: jc85430-1 Acquired: 4/3/2019 16:14:47 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.2355</b>	<b>.0030</b>	<b>.0020</b>	<b>.0384</b>	<b>.3034</b>	<b>4.994</b>	<b>1.124</b>	<b>.1156</b>	<b>.0011</b>
Stddev	.0002	.0001	.0001	.0002	.0011	.0008	.002	.0002	.0003
%RSD	.0691	2.267	2.958	.4054	.3493	.1608	.1838	.1871	27.75
#1	.2353	.0030	.0020	.0382	.3030	4.991	1.122	.1156	.0014
#2	.2357	.0029	.0019	.0385	.3026	4.988	1.124	.1158	.0009
#3	.2354	.0029	.0020	.0384	.3046	5.003	1.126	.1154	.0010
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.1242</b>	<b>.9297</b>	<b>.1002</b>	<b>-0.001</b>	<b>.7196</b>	<b>.0026</b>	<b>.0033</b>	<b>48.82</b>	<b>10.22</b>
Stddev	.0003	.0017	.0010	.0006	.0031	.0005	.0003	.08	.02
%RSD	.2266	.1796	.9862	486.1	.4284	20.43	8.685	.1589	2411
#1	.1245	.9317	.0991	.0000	.7161	.0025	.0031	48.83	10.21
#2	.1240	.9285	.1004	-.0007	.7221	.0032	.0036	48.89	10.24
#3	.1241	.9291	.1010	.0003	.7205	.0022	.0032	48.74	10.19
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sr1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>103.7</b>	<b>18.75</b>	<b>9.071</b>	<b>8.425</b>	<b>.0530</b>	<b>.0038</b>	<b>1.628</b>	<b>.2037</b>	<b>.1071</b>
Stddev	.3	.04	.040	.012	.0003	.0002	.009	.0011	.0003
%RSD	.3358	.1972	.4459	.1456	.4994	5.843	.5654	.5446	.2813
#1	104.1	18.79	9.117	8.416	.0528	.0039	1.633	.2032	.1074
#2	103.6	18.73	9.041	8.439	.0533	.0041	1.633	.2050	.1068
#3	103.4	18.73	9.056	8.419	.0528	.0036	1.617	.2030	.1070
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	<b>1.478</b>	<b>.0064</b>	<b>.0349</b>	<b>37.09</b>	<b>.0043</b>	<b>.0985</b>	<b>2.931</b>		
Stddev	.002	.0007	.0004	.06	.0005	.0015	.018		
%RSD	.1239	10.78	1.129	.1518	12.46	1.498	.6122		
#1	1.476	.0056	.0354	37.06	.0045	.0971	2.919		
#2	1.478	.0068	.0347	37.15	.0037	.1000	2.951		
#3	1.480	.0068	.0347	37.05	.0047	.0984	2.922		

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7.3  
7

Sample Name: jc85430-1 Acquired: 4/3/2019 16:14:47 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	110730.	10875.	4472.1	9248.6
Stddev	352.	19.	3.1	14.0
%RSD	.31798	.17879	.06956	.15176
#1	110950.	10854.	4470.9	9261.0
#2	110910.	10892.	4475.6	9251.3
#3	110320.	10879.	4469.8	9233.4

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Sample Name: jc85430-2 Acquired: 4/3/2019 16:19:59 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.2402</b>	<b>.0039</b>	<b>.0015</b>	<b>.0511</b>	<b>.4425</b>	<b>.6716</b>	<b>1.133</b>	<b>.1630</b>	<b>.0015</b>
Stddev	.0004	.0000	.0001	.0001	.0010	.0018	.002	.0002	.0004
%RSD	.1484	.5426	7.712	.1397	2.266	.2645	.1450	.1461	26.80
#1	.2399	.0039	.0015	.0512	.4437	.6697	1.134	.1629	.0019
#2	.2406	.0039	.0013	.0512	.4422	.6733	1.131	.1633	.0011
#3	.2401	.0039	.0015	.0511	.4418	.6718	1.132	.1628	.0015
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.1658</b>	<b>1.051</b>	<b>.1849</b>	<b>-0.004</b>	<b>8.544</b>	<b>.0027</b>	<b>.0117</b>	<b>66.67</b>	<b>10.57</b>
Stddev	.0004	.002	.0019	.0006	.0031	.0007	.0006	.13	.04
%RSD	.2608	.2111	1.042	133.2	.3619	27.02	4.731	.2021	.3356
#1	.1655	1.053	.1838	.0002	8.577	.0024	.0121	66.80	10.58
#2	.1656	1.051	.1871	-.0007	8.539	.0021	.0111	66.53	10.53
#3	.1663	1.048	.1838	-.0008	8.515	.0035	.0121	66.68	10.59
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sr1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>134.9</b>	<b>24.40</b>	<b>11.94</b>	<b>7.972</b>	<b>.0652</b>	<b>.0067</b>	<b>1.626</b>	<b>.2318</b>	<b>1.107</b>
Stddev	.1	.14	.01	.012	.0009	.0001	.012	.0004	.0008
%RSD	.0976	.5808	.0859	.1490	1.335	.7717	.7346	.1790	.6822
#1	134.8	24.40	11.95	7.984	.0644	.0068	1.637	.2313	.1099
#2	134.9	24.27	11.94	7.961	.0651	.0067	1.613	.2319	.1109
#3	135.1	24.55	11.93	7.971	.0661	.0067	1.629	.2321	.1114
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	<b>1.641</b>	<b>.0057</b>	<b>.0477</b>	<b>66.93</b>	<b>.0070</b>	<b>2.155</b>			
Stddev	.002	.0004	.0002	.14	.0006	.0008	.005		
%RSD	.1287	7.073	.4072	2064	9.127	.6222	.2437		
#1	1.644	.0053	.0478	66.77	.0063	.1320	2.149		
#2	1.640	.0058	.0474	67.00	.0075	.1322	2.160		
#3	1.640	.0061	.0477	67.01	.0073	.1335	2.155		

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Sample Name: jc85430-2 Acquired: 4/3/2019 16:19:59 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	111300.	10951.	4489.9	9208.5
Stddev	186.	64.	1.3	1.8
%RSD	.16700	.58766	.02797	.01962
#1	111130.	10937.	4491.3	9210.5
#2	111490.	11022.	4488.8	9207.0
#3	111270.	10896.	4489.6	9207.9

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Sample Name: jc85456-27 Acquired: 4/3/2019 16:25:09 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2135	.0025	.0002	.0346	.1015	.0640	2.267	.0820	.0003
Stddev	.0005	.0001	.0001	.0003	.0005	.0003	.003	.0005	.0003
%RSD	.2456	2.410	44.36	.7834	.5375	.4944	.1246	.6241	120.2
#1	.2133	.0024	.0001	.0343	.1017	.0642	2.268	.0826	.0002
#2	.2141	.0025	.0003	.0347	.1019	.0636	2.269	.0817	.0006
#3	.2131	.0025	.0003	.0348	.1009	.0641	2.264	.0818	-.0000
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1600	.2459	.0292	-.0003	.0984	-.0003	.0003	52.62	27.79
Stddev	.0005	.0001	.0005	.0009	.0002	.0010	.0011	.07	.05
%RSD	.3156	.0523	1.661	321.8	.1615	340.0	323.0	.1299	.1653
#1	.1602	.2461	.0294	-.0013	.0982	.0008	.0013	52.58	27.83
#2	.1605	.2458	.0286	.0002	.0985	-.0010	-.0009	52.70	27.79
#3	.1612	.2459	.0295	.0003	.0984	-.0007	.0006	52.58	27.74
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	95.98	25.71	13.67	6.012	0.310	0.126	1.324	0.433	1.585
Stddev	.20	.05	.04	.017	.0001	.0001	.005	.0004	.0001
%RSD	.2121	.2007	.3169	.2844	.3505	.7869	.3458	.9813	.0585
#1	96.14	25.72	13.66	6.016	.0309	.0126	1.324	.0436	.1586
#2	96.06	25.75	13.72	6.028	.0311	.0127	1.319	.0433	.1586
#3	95.75	25.65	13.63	5.994	.0310	.0125	1.328	.0428	.1584
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	2.582	.0052	.0408	36.55	.0019	.1335	2.206		
Stddev	.003	.0002	.0001	.09	.0007	.0016	.004		
%RSD	.1107	4.389	.3060	.2507	35.67	1.196	.1737		
#1	2.581	.0053	.0407	36.64	.0023	.1325	2.210		
#2	2.585	.0049	.0408	36.55	.0023	.1354	2.205		
#3	2.580	.0053	.0409	36.45	.0011	.1326	2.203		

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7.3  
7

Sample Name: jc85456-27 Acquired: 4/3/2019 16:25:09 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	109350.	10828.	4435.7	9130.5
Stddev	471.	47.	2.9	6.4
%RSD	.43095	.43609	.06568	.07028
#1	109390.	10785.	4433.0	9126.8
#2	108860.	10821.	4438.8	9126.9
#3	109790.	10879.	4435.3	9138.0

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Sample Name: jc85494-4 Acquired: 4/3/2019 16:30:22 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 2.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0289	.0019	-.0007	-.0011	1.024	.0374	.0196	.0077	-.0048
Stddev	.0005	.0002	.0004	.0005	.003	.0004	.0002	.0004	.0018
%RSD	1.616	9.320	54.08	42.32	.3083	1.071	1.223	5.107	36.88
#1	.0292	.0018	-.0003	-.0016	1.023	.0370	.0194	.0074	-.0068
#2	.0292	.0018	-.0011	-.0007	1.021	.0375	.0198	.0076	-.0033
#3	.0284	.0021	-.0007	-.0011	1.027	.0378	.0197	.0082	-.0043
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.660	.0502	.1169	.0004	.0307	.0083	.0008	21.24	.7605
Stddev	.0026	.0004	.0018	.0029	.0017	.0033	.0023	.15	.0196
%RSD	.9719	.8627	1.560	762.1	5.388	39.74	295.4	.6967	2.577
#1	2.682	.0498	.1182	.0035	.0304	.0120	.0004	21.08	.7379
#2	2.665	.0501	.1148	-.0003	.0292	.0070	.0033	21.37	.7720
#3	2.632	.0507	.1176	-.0021	.0325	.0058	-.0013	21.28	.7718
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	324.8	2.547	6.239	.7474	0.370	0.1011	1.786	.0214	0.122
Stddev	3.4	.068	.111	.0103	.0013	.0013	.022	.0012	.0002
%RSD	1.051	2.682	1.783	1.377	3.421	1.244	1.257	5.647	1.851
#1	321.0	2.471	6.115	.7359	.0385	.1004	1.769	.0205	.0120
#2	327.7	2.566	6.329	.7559	.0365	.1004	1.778	.0208	.0125
#3	325.8	2.604	6.274	.7504	.0361	.1026	1.811	.0227	.0122
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	.7630	.0077	.1140	3.989	.0170	.0046	6.080		
Stddev	.0030	.0003	.0004	.028	.0004	.0007	.0068		
%RSD	.3953	3.973	.3573	.7102	2.609	14.93	1.114		
#1	.7628	.0081	.1138	3.963	.0166	.0041	.6023		
#2	.7601	.0075	.1144	3.984	.0175	.0054	.6063		
#3	.7661	.0076	.1137	4.019	.0169	.0043	.6155		

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Zoom In  
Zoom Out

Sample Name: jc85494-4 Acquired: 4/3/2019 16:30:22 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 2.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	109640.	10527.	4374.3	9517.0
Stddev	508.	17.	28.7	62.1
%RSD	.46365	.16226	.65640	.65229
#1	109710.	10543.	4390.8	9550.8
#2	109100.	10530.	4391.0	9554.8
#3	110110.	10509.	4341.2	9445.3

Zoom In  
Zoom Out

Sample Name: ccv Acquired: 4/3/2019 16:35:42 Type: QC  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.986	1.971	2.008	1.990	1.990	1.950	1.995	2.002	2.457
Stddev	.004	.002	.030	.029	.003	.000	.002	.030	.0003
%RSD	.1764	.0990	1.508	1.436	.1288	.0221	.1140	1.488	.1103
#1	1.986	1.972	1.995	1.978	1.987	1.951	1.995	1.987	2.454
#2	1.990	1.969	1.986	1.969	1.992	1.950	1.997	1.982	2.459
#3	1.983	1.972	2.042	2.022	1.992	1.950	1.993	2.036	2.457

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
 Value Range

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.958	2.009	2.005	2.060	2.012	1.999	2.022	39.24	39.51
Stddev	.004	.033	.030	.030	.030	.030	.034	.06	.07
%RSD	.1918	1.645	1.495	1.461	1.516	1.485	1.692	.1482	.1738
#1	1.955	1.992	1.994	2.043	1.996	1.991	2.011	39.29	39.57
#2	1.962	1.987	1.982	2.042	1.992	1.973	1.995	39.17	39.44
#3	1.958	2.047	2.039	2.094	2.047	2.031	2.060	39.25	39.54

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
 Value Range

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	39.50	38.71	39.16	39.19	2.046	2.031	5.090	2.051	1.977
Stddev	.10	.11	.04	.02	.029	.031	.073	.033	.002
%RSD	.2632	.2782	.0981	.0632	1.424	1.539	1.437	1.598	.0929
#1	39.45	38.70	39.15	39.21	2.033	2.017	5.061	2.038	1.976
#2	39.43	38.60	39.12	39.16	2.025	2.010	5.035	2.026	1.979
#3	39.62	38.82	39.20	39.19	2.079	2.067	5.173	2.088	1.977

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
 Value Range

7.3  
7

Zoom In  
Zoom Out

Sample Name: ccv Acquired: 4/3/2019 16:35:42 Type: QC  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.984	2.003	1.985	2.012	2.024	1.961	2.016
Stddev	.003	.030	.001	.024	.030	.003	.028
%RSD	.1535	1.482	.0716	1.206	1.474	.1398	1.374
#1	1.981	1.988	1.985	2.008	2.013	1.962	2.000
#2	1.987	1.983	1.986	1.990	2.002	1.964	2.000
#3	1.985	2.037	1.983	2.038	2.058	1.959	2.048

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
 Value Range

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	105330.	10280.	4254.6	8696.3
Stddev	149.	47.	62.1	118.8
%RSD	.14164	.45443	1.4595	1.3662
#1	105470.	10274.	4284.4	8755.6
#2	105170.	10330.	4296.1	8773.9
#3	105350.	10237.	4183.2	8559.5

Zoom In  
Zoom Out

Sample Name: ccb Acquired: 4/3/2019 16:40:43 Type: QC  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0003	F .0003	.0004	.0003	-.0000	-.0003	.0002	.0004	-.0001
Stddev	.0002	.0001	.0001	.0001	.0003	.0003	.0000	.0002	.0004
%RSD	56.39	23.68	18.17	33.40	690.3	106.1	15.45	50.80	412.3
#1	.0005	.0002	.0004	.0003	-.0002	-.0007	.0002	.0005	-.0006
#2	.0004	.0002	.0003	.0003	.0003	-.0001	.0002	.0002	.0003
#3	.0001	.0003	.0003	.0002	-.0003	-.0001	.0002	.0004	-.0000

Check ? Chk Pass Chk Fail Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
 High Limit Low Limit

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0004	.0001	-.0002	-.0003	.0003	.0005	.0002	.0004	.0003
Stddev	.0002	.0000	.0003	.0007	.0009	.0003	.0014	.0006	.0016
%RSD	62.83	42.66	167.3	192.2	329.3	50.83	793.7	139.8	628.7
#1	.0003	.0001	-.0001	.0004	-.0004	.0004	-.0011	.0010	.0012
#2	.0007	.0000	-.0001	-.0005	-.0001	.0008	.0001	-.0001	.0012
#3	.0002	.0001	-.0005	-.0010	.0013	.0003	.0016	.0004	-.0016

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
 High Limit Low Limit

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0084	.0062	.0216	.0020	.0005	.0005	.0013	-.0003	.0001
Stddev	.0072	.0123	.0223	.0083	.0004	.0002	.0001	.0005	.0001
%RSD	85.58	200.0	103.1	413.0	84.51	37.99	6.683	153.9	92.80
#1	.0094	.0019	-.0041	-.0075	.0009	.0006	.0012	-.0000	.0000
#2	.0008	-.0035	.0350	.0078	.0000	.0003	.0014	-.0001	.0001
#3	.0150	.0200	.0339	.0056	.0006	.0006	.0012	-.0010	.0002

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: ccb Acquired: 4/3/2019 16:40:43 Type: QC  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.001	0.013	0.003	0.002	-0.001	0.011	0.014
Stddev	0.003	0.004	0.001	0.025	0.009	0.014	0.003
%RSD	255.3	30.62	28.68	1177.	833.6	125.4	25.56

#1	-0.004	0.013	0.002	0.008	-0.010	-0.004	0.018
#2	-0.001	0.017	0.002	-0.025	-0.003	0.013	0.012
#3	0.001	0.009	0.004	0.023	0.009	0.023	0.011

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
 High Limit  
 Low Limit

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	110740.	10356.	4429.1	9765.8
Stddev	169.	41.	3.1	10.1
%RSD	.15224	.39417	.06894	.10299

#1	110660.	10315.	4425.8	9755.8
#2	110630.	10356.	4431.7	9775.9
#3	110930.	10397.	4429.9	9765.8

Sample Name: icsa Acquired: 4/3/2019 16:46:12 Type: QC  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.003	0.003	-0.004	-0.009	0.005	0.033	-0.022	0.006	-0.029
Stddev	0.002	0.000	0.001	0.002	0.002	0.003	0.001	0.003	0.004
%RSD	66.84	14.05	27.40	26.36	35.87	9.362	5.544	43.13	12.52

#1	-0.002	0.003	-0.005	-0.010	0.007	0.030	-0.024	0.006	-0.026
#2	-0.005	0.002	-0.003	-0.012	0.005	0.036	-0.021	0.009	-0.033
#3	-0.002	0.003	-0.004	-0.007	0.003	0.031	-0.022	0.004	-0.027

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
 High Limit  
 Low Limit

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	0.014	-0.019	-0.006	-0.011	0.016	-0.036	0.029	503.3	387.7
Stddev	0.005	0.003	0.018	0.016	0.005	0.019	0.018	.1	.6
%RSD	39.22	15.49	332.1	149.4	31.45	53.15	61.61	0.274	1.492

#1	0.016	-0.021	0.010	-0.004	0.012	-0.020	0.021	503.1	387.6
#2	0.008	-0.020	-0.026	-0.030	0.022	-0.057	0.050	503.3	388.4
#3	0.018	-0.015	-0.000	-0.000	0.015	-0.032	0.017	503.4	387.3

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
 High Limit  
 Low Limit

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	191.8	491.3	-4097	-0.069	-0.073	-0.012	-0.100	-0.017	-0.031
Stddev	.2	1.2	0.183	0.087	0.013	0.004	0.004	0.006	0.001
%RSD	0.1059	0.2444	4.474	126.5	18.27	33.30	3.800	36.12	1.716

#1	191.6	491.2	-3904	0.031	-0.082	-0.013	-0.101	-0.017	-0.032
#2	192.0	492.5	-4117	-0.129	-0.080	-0.008	-0.095	-0.023	-0.031
#3	191.8	490.1	-4269	-0.109	-0.058	-0.016	-0.103	-0.011	-0.031

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: 4/3/2019 16:46:12 Type: QC  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.011	0.121	-0.020	-0.041	0.085	-0.116	0.024
Stddev	0.001	0.012	0.001	0.017	0.006	0.012	0.014
%RSD	9.961	9.629	5.423	40.45	7.369	10.65	59.00

#1	-0.012	0.108	-0.021	-0.024	0.085	-0.128	0.039
#2	-0.010	0.125	-0.019	-0.057	0.079	-0.104	0.021
#3	-0.011	0.131	-0.019	-0.042	0.092	-0.116	0.011

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
 High Limit  
 Low Limit

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	96892.	10027.	3954.9	7681.0
Stddev	28.	24.	2.5	3.4
%RSD	0.2908	0.23954	0.06304	0.04444

#1	96924.	10034.	3954.4	7683.4
#2	96879.	10001.	3957.6	7677.1
#3	96872.	10047.	3952.8	7682.5

Sample Name: ICSAB Acquired: 4/3/2019 16:51:26 Type: QC  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5031	4849	1.006	4819	4753	4972	4848	9644	1.019
Stddev	0.005	0.005	0.03	0.003	0.019	0.018	0.009	0.009	0.003
%RSD	0.1076	0.0942	2.949	0.0533	0.3911	0.3548	0.1770	0.0912	0.3014

#1	5029	4848	1.008	4820	4773	4964	4848	9644	1.023
#2	5037	4854	1.003	4821	4737	4993	4839	9653	1.018
#3	5026	4846	1.008	4816	4749	4960	4856	9636	1.017

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
 Value Range

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4813	9269	1.063	9869	9591	1.037	1.062	506.7	382.6
Stddev	0.013	0.001	0.02	0.033	0.037	0.04	0.02	1.4	0.9
%RSD	0.2777	0.0126	0.1454	0.3355	0.3831	0.4299	0.2061	0.2721	0.2300

#1	4803	9268	1.064	9907	9603	1.042	1.062	506.0	382.2
#2	4828	9269	1.061	9853	9549	1.033	1.060	508.3	383.6
#3	4808	9270	1.064	9847	9619	1.036	1.064	505.7	382.0

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
 Value Range

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	185.4	491.8	-4438	0.010	4772	4821	5223	4536	5531
Stddev	.5	1.3	0.176	0.039	0.015	0.009	0.025	0.020	0.009
%RSD	0.2703	0.2643	3.959	38.52	0.3200	0.1809	0.4710	0.4439	0.1689

#1	185.3	491.3	-4360	0.098	4787	4830	5211	4557	5522
#2	186.0	493.3	-4640	0.064	4772	4812	5207	4517	5541
#3	185.0	490.9	-4316	0.142	4756	4821	5251	4534	5530

Check ? Chk Pass Chk Pass None None Chk Pass Chk Pass Chk Pass Chk Pass  
 Value Range

Sample Name: ICSAB Acquired: 4/3/2019 16:51:26 Type: QC  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.4829</b>	<b>.4715</b>	<b>.5094</b>	<b>.4773</b>	<b>.4931</b>	<b>.5066</b>	<b>.5112</b>
Stddev	.0007	.0018	.0005	.0025	.0018	.0008	.0041
%RSD	.1517	.3892	.1048	.5191	.3585	.1577	.8080

#1	.4837	.4727	.5088	.4760	.4947	.5057	.5146
#2	.4829	.4694	.5096	.4758	.4912	.5067	.5066
#3	.4822	.4725	.5098	.4802	.4933	.5073	.5125

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
 Value Range

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>97129.</b>	<b>9954.1</b>	<b>3962.2</b>	<b>7686.9</b>
Stddev	423.	36.9	4.9	4.1
%RSD	.43532	.37037	.12466	.05335

#1	96729.	9977.7	3960.2	7684.5
#2	97571.	9911.6	3967.8	7684.6
#3	97087.	9972.9	3958.6	7691.6

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Sample Name: jc85419-2 Acquired: 4/3/2019 16:56:31 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 2.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.5166</b>	<b>.0053</b>	<b>.0007</b>	<b>.0673</b>	<b>1.928</b>	<b>.3873</b>	<b>13.95</b>	<b>.1568</b>	<b>-.0004</b>
Stddev	.0013	.0001	.0003	.0004	.004	.0006	.03	.0010	.0006
%RSD	.2541	1.054	37.20	.6643	.1901	.1557	.2466	.6400	154.7

#1	.5165	.0053	.0006	.0678	1.929	.3866	13.92	.1580	-.0010
#2	.5153	.0053	.0006	.0669	1.930	.3878	13.99	.1563	-.0002
#3	.5179	.0054	.0011	.0671	1.924	.3875	13.93	.1562	-.0004

Elem V\_2924 Zn2062 As1890 Tl1908 Pb2203 Se1960 Sb2068 Al3961 Ca3179  
 Units ppm ppm ppm ppm ppm ppm ppm ppm ppm  
 Avg **.4902** **.5951** **.1039** **.0000** **.2324** **-.0022** **.0096** **99.24** **162.2**  
 Stddev .0012 .0007 .0023 .0025 .0015 .0026 .0013 .14 .3  
 %RSD .2517 .1209 2.199 10840. .6421 115.0 13.59 .1400 .1804

#1	.4898	.5959	.1015	-.0004	.2334	-.0052	.0103	99.17	161.9
#2	.4916	.5944	.1061	-.0022	.2330	-.0006	.0081	99.40	162.3
#3	.4893	.5951	.1040	.0027	.2307	-.0009	.0104	99.16	162.4

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>270.7</b>	<b>56.08</b>	<b>6.467</b>	<b>4.729</b>	<b>2.391</b>	<b>.0159</b>	<b>2.989</b>	<b>.0369</b>	<b>.4158</b>
Stddev	.5	.04	.065	.013	.0008	.0002	.014	.0002	.0008
%RSD	.1973	.0797	1.006	.2736	.3183	1.283	.4558	.6650	.1996

#1	270.1	56.12	6.392	4.714	2.383	.0157	3.001	.0370	.4152
#2	270.8	56.10	6.500	4.737	2.398	.0160	2.991	.0370	.4168
#3	271.1	56.03	6.509	4.736	2.393	.0161	2.974	.0366	.4156

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>5.466</b>	<b>.0353</b>	<b>.1586</b>	<b>8.251</b>	<b>.0078</b>	<b>.1025</b>	<b>3.555</b>
Stddev	.009	.0006	.0002	.011	.0011	.0009	.005
%RSD	.1611	1.701	.1036	.1367	14.16	.8478	.1293

#1	5.476	.0348	.1588	8.239	.0076	.1033	3.559
#2	5.466	.0351	.1585	8.253	.0090	.1016	3.556
#3	5.458	.0359	.1584	8.261	.0068	.1026	3.550

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Sample Name: jc85419-2 Acquired: 4/3/2019 16:56:31 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 2.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>109360.</b>	<b>10684.</b>	<b>4372.0</b>	<b>8991.2</b>
Stddev	135.	39.	2.1	10.5
%RSD	.12389	.36685	.04845	.11690

#1	109500.	10726.	4369.6	8981.3
#2	109330.	10676.	4373.7	8990.0
#3	109230.	10649.	4372.8	9002.2

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Sample Name: mp13761-b1 Acquired: 4/3/2019 17:01:52 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>1.898</b>	<b>1.894</b>	<b>1.890</b>	<b>1.874</b>	<b>1.885</b>	<b>1.866</b>	<b>1.899</b>	<b>1.879</b>
Stddev	.006	.006	.004	.003	.006	.006	.004	.001
%RSD	.3445	.3115	.1843	.1600	.3160	.3002	.2245	.0547

#1	1.890	1.887	1.893	1.877	1.887	1.872	1.902	1.879
#2	1.902	1.897	1.886	1.872	1.878	1.862	1.894	1.881
#3	1.901	1.897	1.889	1.872	1.890	1.863	1.900	1.879

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>2373</b>	<b>1.863</b>	<b>1.915</b>	<b>1.896</b>	<b>1.960</b>	<b>1.891</b>	<b>1.855</b>	<b>1.922</b>
Stddev	.0011	.005	.003	.002	.003	.003	.002	.003
%RSD	.4648	.2924	.1637	.1169	.1624	.1306	.0804	.1325

#1	2379	1.869	1.917	1.897	1.960	1.890	1.856	1.925
#2	2361	1.858	1.916	1.894	1.957	1.894	1.856	1.921
#3	2380	1.863	1.911	1.898	1.963	1.890	1.854	1.920

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>24.15</b>	<b>24.54</b>	<b>24.67</b>	<b>23.94</b>	<b>24.00</b>	<b>24.25</b>	<b>1.868</b>	<b>1.962</b>
Stddev	.10	.09	.09	.09	.08	.07	.003	.001
%RSD	.4207	.3748	.3779	.3774	.3523	.2866	.1531	.0571

#1	24.04	24.45	24.56	23.87	23.92	24.17	1.869	1.963
#2	24.17	24.54	24.74	23.90	23.99	24.29	1.870	1.961
#3	24.24	24.63	24.71	24.04	24.09	24.29	1.864	1.961

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.1686</b>	<b>1.992</b>	<b>1.892</b>	<b>1.901</b>	<b>1.774</b>	<b>1.898</b>	<b>F-.0729</b>	<b>-.0008</b>
Stddev	.0013	.002	.006	.005	.004	.003	.0007	.0005
%RSD	.7568	.1114	.3155	.2775	.2485	.1574	1.025	57.59

#1	.1672	1.993	1.885	1.905	1.779	1.901	-.0732	-.0007
#2	.1690	1.994	1.896	1.895	1.772	1.895	-.0735	-.0013
#3	.1696	1.990	1.894	1.903	1.771	1.899	-.0721	-.0004

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Zoom In  
Zoom Out

Sample Name: mp13761-b1 Acquired: 4/3/2019 17:01:52 Type: Unk  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Elem	Li6707	P_1774		
Units	ppm	ppm		
Avg	-0021	1.916		
Stddev	.0014	.003		
%RSD	67.01	.1664		
#1	-0005	1.912		
#2	-0027	1.918		
#3	-0031	1.917		
Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	107740.	10406.	4305.6	8960.2
Stddev	338.	50.	8.4	12.4
%RSD	.31327	.47784	.19524	.13868
#1	107720.	10436.	4299.6	8955.3
#2	108090.	10434.	4302.0	8951.0
#3	107420.	10349.	4315.2	8974.3

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Zoom In  
Zoom Out

Sample Name: mp13761-mb1 Acquired: 4/3/2019 17:06:53 Type: Unk  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	0003	0001	0002	-0000	0011	0009	0006	0004	-0003
Stddev	.0001	.0000	.0000	.0001	.0003	.0003	.0001	.0002	.0004
%RSD	49.66	46.99	11.91	758.4	23.31	40.17	8.536	50.60	119.8
#1	.0003	.0000	.0002	-0002	.0013	.0006	.0007	.0002	-0001
#2	.0003	.0001	.0002	.0001	.0011	.0007	.0007	.0004	-0001
#3	.0001	.0000	.0002	-0000	.0008	.0012	.0006	.0007	-0008
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	0001	0020	-0009	-0001	0004	0009	-0007	0193	0629
Stddev	.0004	.0001	.0012	.0006	.0004	.0007	.0003	.0066	.0026
%RSD	477.1	3.208	133.2	823.1	100.0	78.48	49.92	34.25	4.175
#1	.0004	.0021	-0012	.0002	.0005	.0015	-0005	.0128	.0651
#2	-0003	.0021	.0004	.0004	.0008	.0010	-0010	.0260	.0636
#3	.0001	.0020	-0020	-0008	.0008	.0001	-0005	.0191	.0600
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	0362	0006	0260	0546	0012	0005	0134	0196	0003
Stddev	.0076	.0094	.0052	.0043	.0007	.0001	.0003	.0003	.0001
%RSD	20.98	161.1	19.94	7.896	60.46	17.13	2.341	1.289	27.10
#1	.0429	.0106	.0320	.0498	.0020	.0006	.0131	.0193	.0004
#2	.0279	-0008	.0230	.0559	.0010	.0006	.0136	.0197	.0003
#3	.0378	-0080	.0231	.0582	.0006	.0004	.0137	.0197	.0003
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	0007	0036	0008	0064	-0015	-0014	0232		
Stddev	.0004	.0003	.0000	.0014	.0016	.0004	.0008		
%RSD	50.31	7.896	4.175	21.47	106.8	28.21	3.589		
#1	.0009	.0035	.0007	.0060	.0002	-0016	.0224		
#2	.0009	.0034	.0008	.0080	-0029	-0010	.0241		
#3	.0003	.0039	.0007	.0053	-0018	-0017	.0231		

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7.3  
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Zoom In  
Zoom Out

Sample Name: mp13761-mb1 Acquired: 4/3/2019 17:06:53 Type: Unk  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	112800.	10590.	4443.8	9802.1
Stddev	91.	44.	4.5	13.4
%RSD	.08051	.41400	.10154	.13713
#1	112700.	10583.	4447.1	9814.8
#2	112800.	10551.	4438.6	9788.0
#3	112860.	10637.	4445.5	9803.6

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Zoom In  
Zoom Out

Sample Name: mp13761-s1 Acquired: 4/3/2019 17:12:20 Type: Unk  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.682	1.825	1.853	1.900	1.933	2.001	5.790	1.955	2.362
Stddev	.004	.003	.002	.002	.006	.003	.011	.001	.0004
%RSD	.1358	.1479	.1006	.1002	.3208	.1344	.1958	.0587	.1765
#1	2.682	1.823	1.852	1.901	1.931	2.003	5.795	1.955	2.360
#2	2.678	1.824	1.855	1.901	1.940	2.003	5.798	1.956	2.367
#3	2.685	1.828	1.853	1.898	1.929	1.998	5.777	1.954	2.359
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.057	2.214	1.856	1.926	2.183	1.799	1.182	131.5	37.82
Stddev	.003	.005	.004	.003	.001	.002	.004	.1	.03
%RSD	.1560	.2131	.2026	.1788	.0454	.1265	.3689	.0580	.0852
#1	2.058	2.214	1.858	1.922	2.183	1.800	1.181	131.4	37.81
#2	2.059	2.219	1.859	1.928	2.181	1.801	1.186	131.5	37.85
#3	2.053	2.209	1.852	1.929	2.183	1.797	1.177	131.6	37.79
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	138.9	47.65	36.71	24.66	1.812	1.814	2.071	1.943	1.887
Stddev	.1	.21	.05	.03	.005	.004	.002	.002	.002
%RSD	.0462	.4367	.1274	.1170	.2801	.2344	.0876	.1059	.1250
#1	138.8	47.41	36.65	24.69	1.810	1.813	2.069	1.943	1.888
#2	138.8	47.79	36.74	24.63	1.818	1.819	2.073	1.944	1.884
#3	138.9	47.74	36.73	24.66	1.809	1.810	2.070	1.940	1.889
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	6.558	.9462	1.446	1.173	.0036	.0971	6.768		
Stddev	.010	.0023	.002	.002	.0021	.0013	.003		
%RSD	.1557	.2446	.1313	.1298	56.57	1.311	.0486		
#1	6.559	.9436	1.444	1.174	.0024	.0966	6.772		
#2	6.567	.9481	1.448	1.174	.0060	.0986	6.766		
#3	6.547	.9467	1.445	1.171	.0025	.0962	6.766		

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Sample Name: mp13761-s1 Acquired: 4/3/2019 17:12:20 Type: Unk  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	109390.	10896.	4448.0	8818.0
Stddev	.175	.76	6.3	2.9
%RSD	.15969	.69878	.14183	.03326
#1	109400.	10971.	4450.8	8820.6
#2	109210.	10818.	4440.8	8814.8
#3	109550.	10899.	4452.5	8818.6

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Sample Name: mp13761-s2 Acquired: 4/3/2019 17:17:18 Type: Unk  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>2.779</b>	<b>1.823</b>	<b>1.853</b>	<b>1.906</b>	<b>1.915</b>	<b>1.982</b>	<b>6.034</b>	<b>1.964</b>	<b>2.351</b>
Stddev	.009	.007	.016	.013	.054	.057	.149	.015	.0057
%RSD	.3403	.4136	.8628	.6540	2.810	2.862	2.470	.7632	2.439
#1	2.788	1.832	1.864	1.918	1.863	1.923	5.894	1.978	2.288
#2	2.781	1.822	1.834	1.893	1.911	1.989	6.017	1.948	2.366
#3	2.769	1.817	1.861	1.909	1.970	2.035	6.191	1.967	2.400
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>2.013</b>	<b>2.241</b>	<b>1.860</b>	<b>1.921</b>	<b>2.214</b>	<b>1.796</b>	<b>1.172</b>	<b>137.8</b>	<b>37.17</b>
Stddev	.056	.021	.019	.012	.017	.016	.012	.5	.12
%RSD	2.799	.9255	1.004	.6405	.7550	.9115	.9788	.3702	.3179
#1	1.957	2.259	1.876	1.928	2.230	1.807	1.185	138.1	37.24
#2	2.012	2.219	1.840	1.907	2.196	1.778	1.162	138.0	37.23
#3	2.069	2.245	1.866	1.928	2.217	1.805	1.170	137.2	37.03
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>139.5</b>	<b>47.16</b>	<b>36.53</b>	<b>24.64</b>	<b>1.816</b>	<b>1.823</b>	<b>2.104</b>	<b>1.956</b>	<b>1.890</b>
Stddev	.5	.29	.14	.10	.016	.016	.016	.016	.009
%RSD	.3789	.6210	.3752	.3932	.8820	.8631	.7449	.8268	.4494
#1	140.1	47.37	36.68	24.74	1.829	1.835	2.113	1.969	1.899
#2	139.4	47.28	36.50	24.65	1.798	1.805	2.086	1.938	1.891
#3	139.1	46.82	36.41	24.54	1.819	1.829	2.113	1.961	1.882
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	<b>6.176</b>	<b>1.029</b>	<b>1.374</b>	<b>1.285</b>	<b>.0036</b>	<b>.1004</b>	<b>7.481</b>		
Stddev	.172	.008	.040	.011	.0001	.0009	.073		
%RSD	2.781	.7431	2.880	.8655	3.496	8.679	.9798		
#1	6.004	1.034	1.335	1.294	.0037	.1011	7.540		
#2	6.179	1.020	1.373	1.272	.0037	.1007	7.399		
#3	6.347	1.032	1.414	1.288	.0035	.0994	7.504		

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Sample Name: mp13761-s2 Acquired: 4/3/2019 17:17:18 Type: Unk  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>110410.</b>	<b>10893.</b>	<b>4434.4</b>	<b>8778.9</b>
Stddev	2421.	41.	32.0	50.8
%RSD	2.1931	.37588	.72134	.57896
#1	112820.	10905.	4412.3	8742.2
#2	110430.	10847.	4471.1	8836.9
#3	107980.	10926.	4419.8	8757.7

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Sample Name: jc85321-4 Acquired: 4/3/2019 17:22:24 Type: Unk  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.8323</b>	<b>.0046</b>	<b>.0011</b>	<b>.0463</b>	<b>.1047</b>	<b>.1513</b>	<b>4.078</b>	<b>.0919</b>	<b>.0007</b>
Stddev	.0217	.0000	.0001	.0001	.0005	.0003	.007	.0004	.0008
%RSD	2.608	1.025	12.72	.2292	4.971	.1738	.1623	.4388	115.6
#1	.8573	.0045	.0010	.0464	.1041	.1516	4.078	.0924	.0016
#2	.8201	.0046	.0010	.0462	.1051	.1511	4.084	.0917	.0000
#3	.8194	.0046	.0012	.0463	.1047	.1513	4.071	.0917	.0005
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.2285</b>	<b>.4107</b>	<b>.0213</b>	<b>.0005</b>	<b>.3132</b>	<b>-.0004</b>	<b>.0080</b>	<b>88.18</b>	<b>11.50</b>
Stddev	.0002	.0012	.0018	.0015	.0014	.0022	.0008	2.36	.30
%RSD	.0876	.2818	8.621	309.8	4.577	583.4	10.36	2.676	2.569
#1	.2287	.4117	.0233	.0010	.3146	-.0027	.0089	90.90	11.84
#2	.2285	.4108	.0211	-.0012	.3134	.0002	.0073	86.73	11.32
#3	.2283	.4094	.0196	.0016	.3117	.0015	.0079	86.90	11.33
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>116.4</b>	<b>22.90</b>	<b>7.485</b>	<b>4.824</b>	<b>.0373</b>	<b>.0033</b>	<b>1.430</b>	<b>.3110</b>	<b>.0532</b>
Stddev	3.3	.57	.191	.0244	.0003	.0002	.004	.0007	.0013
%RSD	2.823	2.468	2.546	3.038	.9294	6.728	.3066	.2185	2.479
#1	120.2	23.55	7.705	8305	.0369	.0036	1.425	.3105	.0547
#2	114.6	22.63	7.384	7892	.0374	.0031	1.433	.3118	.0526
#3	114.4	22.51	7.367	7875	.0375	.0033	1.432	.3107	.0522
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	<b>3.605</b>	<b>.0079</b>	<b>.0048</b>	<b>1.202</b>	<b>.0019</b>	<b>.0963</b>	<b>5.084</b>		
Stddev	.005	.0009	.0002	.003	.0015	.0038	.013		
%RSD	.1386	11.20	3.725	2062	78.81	3.977	.2551		
#1	3.600	.0070	.0050	1.199	.0015	.1007	5.078		
#2	3.610	.0079	.0046	1.203	.0035	.0942	5.098		
#3	3.605	.0088	.0048	1.203	.0006	.0940	5.074		

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Sample Name: jc85321-4 Acquired: 4/3/2019 17:22:24 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	111910.	10872.	4550.1	9245.6
Stddev	180.	302.	6.3	7.5
%RSD	.16071	2.7804	.13892	.08112

#1	111970.	10524.	4551.2	9236.9
#2	111710.	11031.	4543.3	9249.4
#3	112050.	11062.	4555.8	9250.4

Sample Name: mp13761-sd1 Acquired: 4/3/2019 17:27:35 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 5.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>8646</b>	<b>.0049</b>	<b>.0019</b>	<b>0461</b>	<b>.1098</b>	<b>.1558</b>	<b>4.332</b>	<b>.0939</b>	<b>.0014</b>
Stddev	.0082	.0002	.0010	.0007	.0012	.0016	.020	.0010	.0006
%RSD	.9520	4.736	52.29	1.476	1.087	1.057	.4615	1.063	42.51

#1	.8735	.0048	.0011	.0467	.1110	.1541	4.346	.0927	.0013
#2	.8628	.0048	.0016	.0454	.1086	.1574	4.341	.0945	.0021
#3	.8573	.0052	.0030	.0462	.1097	.1559	4.309	.0944	.0009

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>2434</b>	<b>.4393</b>	<b>.0231</b>	<b>.0016</b>	<b>.3192</b>	<b>.0012</b>	<b>.0099</b>	<b>91.18</b>	<b>12.21</b>
Stddev	.0023	.0017	.0063	.0041	.0017	.0004	.0045	1.07	.07
%RSD	.9588	.3757	27.13	248.2	5.481	35.88	45.12	1.170	.5353

#1	.2456	.4402	.0274	-.0030	.3184	.0012	.0147	92.37	12.28
#2	.2435	.4402	.0261	.0031	.3212	.0016	.0091	90.84	12.20
#3	.2410	.4373	.0159	.0047	.3179	.0007	.0059	90.32	12.15

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>124.0</b>	<b>23.91</b>	<b>7.691</b>	<b>.8248</b>	<b>.0397</b>	<b>.0035</b>	<b>1.501</b>	<b>.3306</b>	<b>.0549</b>
Stddev	1.1	.21	.141	.0176	.0042	.0003	.005	.0025	.0003
%RSD	.8485	.8816	1.832	2.137	10.60	9.065	.3089	.7412	.4939

#1	125.2	23.89	7.846	.8420	.0443	.0037	1.500	.3327	.0552
#2	123.7	24.13	7.655	.8255	.0360	.0037	1.506	.3312	.0550
#3	123.1	23.71	7.571	.8068	.0387	.0031	1.497	.3279	.0547

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>3.744</b>	<b>.0155</b>	<b>.0057</b>	<b>1.241</b>	<b>-.0022</b>	<b>.1008</b>	<b>5.386</b>
Stddev	.014	.0010	.0008	.018	.0091	.0050	.019
%RSD	.3813	6.683	14.30	1.494	420.5	4.998	.3536

#1	3.756	.0164	.0054	1.229	.0083	.0973	5.408
#2	3.749	.0144	.0050	1.231	-.0074	.0984	5.378
#3	3.728	.0157	.0066	1.262	-.0074	.1065	5.373

Sample Name: mp13761-sd1 Acquired: 4/3/2019 17:27:35 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 5.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	112040.	10525.	4498.8	9598.9
Stddev	656.	79.	2.4	5.6
%RSD	.58512	.75260	.05305	.05788

#1	111790.	10485.	4496.5	9592.6
#2	111540.	10474.	4501.3	9601.2
#3	112760.	10617.	4498.6	9603.0

Sample Name: ccv Acquired: 4/3/2019 17:32:55 Type: QC  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>1.977</b>	<b>1.959</b>	<b>1.996</b>	<b>1.971</b>	<b>1.977</b>	<b>1.949</b>	<b>1.987</b>	<b>1.988</b>	<b>2.454</b>
Stddev	.004	.004	.001	.002	.003	.005	.002	.000	.0004
%RSD	.1976	.2247	.0699	.0946	.1515	.2764	.0796	.0155	.1746

#1	1.981	1.963	1.996	1.973	1.981	1.949	1.988	1.987	2.455
#2	1.977	1.958	1.997	1.969	1.976	1.954	1.988	1.987	2.458
#3	1.974	1.955	1.994	1.971	1.975	1.944	1.985	1.988	2.450

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
 Value  
 Range

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>1.953</b>	<b>1.987</b>	<b>1.990</b>	<b>2.051</b>	<b>1.992</b>	<b>1.984</b>	<b>2.008</b>	<b>39.04</b>	<b>39.31</b>
Stddev	.004	.001	.002	.005	.003	.003	.001	.15	.18
%RSD	.2196	.0708	.0786	.2404	.1577	.1317	.0692	.3853	.4522

#1	1.952	1.988	1.990	2.057	1.995	1.986	2.007	39.18	39.49
#2	1.958	1.986	1.991	2.049	1.989	1.985	2.007	39.06	39.30
#3	1.950	1.986	1.988	2.047	1.993	1.981	2.010	38.88	39.13

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
 Value  
 Range

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>39.20</b>	<b>38.41</b>	<b>38.66</b>	<b>38.92</b>	<b>2.031</b>	<b>2.018</b>	<b>5.053</b>	<b>2.031</b>	<b>1.968</b>
Stddev	.04	.16	.11	.14	.003	.002	.007	.002	.003
%RSD	.1010	.4135	.2950	.3604	.1583	.0855	.1383	.1015	.1533

#1	39.21	38.51	38.77	39.03	2.031	2.018	5.053	2.033	1.971
#2	39.24	38.50	38.66	38.96	2.034	2.019	5.060	2.029	1.968
#3	39.16	38.23	38.54	38.76	2.027	2.016	5.046	2.030	1.965

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
 Value  
 Range



Sample Name: ccv Acquired: 4/3/2019 17:32:55 Type: QC  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.979	1.990	1.983	2.000	2.008	1.948	2.005
Stddev	.003	.001	.002	.005	.002	.005	.004
%RSD	.1656	.0686	.1058	.2338	.0966	.2814	.1933
#1	1.978	1.991	1.983	2.005	2.008	1.953	2.009
#2	1.983	1.989	1.985	1.995	2.009	1.948	2.005
#3	1.977	1.989	1.980	2.001	2.005	1.942	2.002

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
 Value High Limit Low Limit

Int. Std. Units	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	106140.	10381.	4301.9	8787.0
Stddev	171.	41.	1.9	1.3
%RSD	.16107	.39510	.04336	.01469
#1	106020.	10376.	4301.6	8785.6
#2	106340.	10343.	4300.2	8787.4
#3	106070.	10425.	4303.9	8788.1

Sample Name: ccb Acquired: 4/3/2019 17:37:57 Type: QC  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0009	F .0006	.0007	.0006	.0013	.0007	F .0015	.0007	.0001
Stddev	.0002	.0003	.0001	.0002	.0002	.0005	.0002	.0002	.0001
%RSD	18.22	57.71	13.55	27.25	13.86	61.72	10.64	22.86	117.5
#1	.0007	.0003	.0008	.0008	.0012	.0013	.0017	.0007	.0000
#2	.0009	.0005	.0006	.0006	.0016	.0006	.0016	.0008	.0000
#3	.0010	.0009	.0007	.0005	.0013	.0004	.0014	.0005	.0001

Check ? Chk Pass Chk Fail Chk Pass Chk Pass Chk Pass Chk Pass Chk Fail Chk Pass Chk Pass  
 Value High Limit Low Limit

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0013	.0007	.0012	.0016	.0012	.0000	.0003	.0181	.0149
Stddev	.0001	.0000	.0012	.0009	.0002	.0006	.0006	.0079	.0107
%RSD	5.276	6.447	103.1	56.86	16.69	3767.	204.0	43.95	71.92
#1	.0013	.0007	.0020	.0017	.0012	.0002	-.0001	.0120	.0061
#2	.0014	.0006	-.0002	.0024	.0014	-.0006	-.0009	.0151	.0117
#3	.0014	.0007	.0017	.0006	.0011	.0005	.0002	.0271	.0268

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
 Value High Limit Low Limit

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sr1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .0135	.0182	.0543	.0160	.0015	.0009	.0025	.0009	.0006
Stddev	.0143	.0444	.0164	.0058	.0005	.0002	.0002	.0004	.0004
%RSD	106.4	244.2	30.20	36.32	34.97	18.22	8.785	44.92	63.56
#1	-.0022	.0235	.0521	.0118	.0021	.0010	.0025	.0012	.0003
#2	.0167	-.0286	.0391	.0137	.0010	.0010	.0027	.0010	.0005
#3	.0258	.0598	.0717	.0227	.0014	.0007	.0023	.0004	.0011

Check ? Chk Fail Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
 Value High Limit Low Limit

Sample Name: ccb Acquired: 4/3/2019 17:37:57 Type: QC  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0010	.0023	.0010	.0002	.0003	.0010	.0007
Stddev	.0004	.0001	.0001	.0015	.0008	.0004	.0003
%RSD	43.73	2.949	10.12	617.7	245.7	45.26	45.99
#1	.0012	.0023	.0011	.0008	.0011	.0005	.0010
#2	.0012	.0024	.0010	.0014	.0004	.0010	.0005
#3	.0005	.0023	.0009	-.0015	-.0005	.0014	.0005

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
 Value High Limit Low Limit

Int. Std. Units	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	111780.	10444.	4460.5	9829.4
Stddev	259.	17.	5.6	15.4
%RSD	.23198	.16549	.12558	.15681
#1	111630.	10461.	4454.0	9811.6
#2	112080.	10446.	4464.0	9839.6
#3	111620.	10426.	4463.5	9836.8

Sample Name: jc85321-1 Acquired: 4/3/2019 17:43:27 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6171	.0044	.0024	.0533	.1008	.2197	3.319	.0907	.0009
Stddev	.0010	.0001	.0001	.0004	.0019	.0050	.073	.0005	.0007
%RSD	.1592	2.704	5.496	8.059	1.905	2.290	2.213	.5426	80.97
#1	.6180	.0045	.0025	.0532	.1000	.2179	3.291	.0902	.0011
#2	.6161	.0043	.0023	.0538	.0995	.2158	3.264	.0910	.0015
#3	.6171	.0045	.0025	.0529	.1030	.2254	3.402	.0911	.0001

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
 Value High Limit Low Limit

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2788	1.206	.0229	.0000	.4490	.0008	.0033	75.76	25.18
Stddev	.0064	.002	.0012	.0003	.0005	.0011	.0013	.08	.01
%RSD	2.284	.1416	5.024	4663.	.1208	136.6	40.91	.1093	.0534
#1	.2768	1.208	.0236	-.0001	.4496	.0020	.0048	75.81	25.16
#2	.2754	1.204	.0216	-.0003	.4485	.0002	.0023	75.66	25.18
#3	.2871	1.205	.0236	.0003	.4490	.0001	.0027	75.80	25.19

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sr1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	121.8	23.68	8.110	1.789	.0465	.0029	1.349	.0977	.1661
Stddev	.1	.02	.052	.007	.0005	.0002	.006	.0006	.0005
%RSD	.1063	.0656	.6453	.4131	1.033	5.582	.4376	.6223	.3107
#1	121.9	23.68	8.171	1.790	.0470	.0029	1.355	.0983	.1662
#2	121.7	23.67	8.082	1.781	.0467	.0027	1.346	.0975	.1656
#3	121.8	23.70	8.079	1.796	.0460	.0030	1.345	.0972	.1666

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.066	.0057	.0151	1.934	.0018	.1075	5.201
Stddev	.093	.0008	.0003	.006	.0014	.0007	.031
%RSD	2.285	13.56	1.730	.3346	80.01	.6600	.5886
#1	4.027	.0052	.0148	1.941	.0033	.1082	5.220
#2	3.998	.0053	.0152	1.930	.0005	.1068	5.216
#3	4.172	.0066	.0153	1.931	.0015	.1077	5.165



Sample Name: jc85321-1 Acquired: 4/3/2019 17:43:27 Type: Unk  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	110890.	10887.	4534.7	9231.8
Stddev	1946.	27.	1.6	8.1
%RSD	1.7545	.24607	.03526	.08742
#1	111510.	10857.	4532.9	9236.7
#2	112450.	10901.	4535.6	9236.3
#3	108710.	10905.	4535.7	9222.5

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Sample Name: jc85321-2 Acquired: 4/3/2019 17:48:38 Type: Unk  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4836	.0036	.0011	0460	0873	1272	3.145	.0732	.0003
Stddev	.0003	.0001	.0001	.0004	.0005	.0004	.002	.0003	.0003
%RSD	.0636	2.014	12.87	.7862	.6257	.2754	.0768	.4738	104.2
#1	4838	.0037	.0013	0463	0870	1274	3.143	.0730	.0003
#2	4832	.0035	.0011	0463	0870	1268	3.148	.0736	.0005
#3	4837	.0036	.0010	0456	0879	1275	3.144	.0730	-.0000
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2791	.3678	.0187	-0.002	.1700	-0.0006	-0.0010	72.17	11.37
Stddev	.0005	.0009	.0005	.0001	.0004	.0018	.0013	.04	.01
%RSD	.1786	.2434	2.841	39.75	2.419	280.1	127.8	.0550	.0562
#1	2795	.3686	.0182	-.0001	.1696	.0008	-.0017	72.20	11.38
#2	2793	.3680	.0186	-.0002	.1702	-.0000	-.0017	72.19	11.36
#3	2785	.3668	.0192	-.0002	.1703	-.0027	.0005	72.12	11.37
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	115.4	19.78	7.194	1.047	0.302	0.022	1.263	0.409	0.481
Stddev	.1	.08	.006	.006	.0004	.0001	.002	.0003	.0001
%RSD	.1227	.3911	.0872	.5801	1.169	4.650	.1628	.7458	.1872
#1	115.5	19.87	7.190	1.045	.0304	.0023	1.265	.0411	.0480
#2	115.4	19.74	7.190	1.053	.0304	.0023	1.261	.0406	.0482
#3	115.2	19.73	7.201	1.042	.0298	.0021	1.264	.0411	.0480
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	4.379	.0055	.0235	1.257	.0018	.0761	3.598		
Stddev	.004	.0006	.0002	.008	.0013	.0012	.008		
%RSD	.0797	11.71	.7057	.6315	72.24	1.571	.2240		
#1	4.375	.0061	.0237	1.249	.0032	.0774	3.593		
#2	4.381	.0048	.0233	1.264	.0016	.0750	3.608		
#3	4.381	.0056	.0236	1.258	.0006	.0758	3.594		

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7.3  
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Sample Name: jc85321-2 Acquired: 4/3/2019 17:48:38 Type: Unk  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	112060.	10941.	4547.2	9299.1
Stddev	85.	23.	6.0	11.2
%RSD	.07573	.21155	.13134	.12074
#1	112160.	10961.	4542.7	9289.7
#2	112000.	10947.	4545.0	9296.0
#3	112030.	10916.	4554.0	9311.5

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Sample Name: jc85321-3 Acquired: 4/3/2019 17:53:51 Type: Unk  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4378	.0037	.0007	0397	0897	0973	2.147	.0718	.0011
Stddev	.0008	.0001	.0002	.0004	.0001	.0002	.002	.0002	.0004
%RSD	.1749	1.687	30.68	.9046	.0824	.2127	.0888	.2903	35.25
#1	4384	.0038	.0006	.0401	.0897	.0975	2.149	.0720	.0011
#2	4381	.0037	.0009	.0395	.0896	.0972	2.148	.0716	.0007
#3	4370	.0037	.0005	.0395	.0897	.0972	2.145	.0718	.0015
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1929	.2906	.0177	.0002	1660	-0.0010	.0023	69.81	6.026
Stddev	.0003	.0002	.0004	.0003	.0005	.0018	.0005	.05	.024
%RSD	.1725	.0688	2.277	201.3	.3308	178.4	19.87	.0667	.4007
#1	1932	.2906	.0178	.0005	1657	-.0023	.0028	69.80	6.032
#2	1930	.2904	.0181	.0001	1656	-.0017	.0023	69.86	6.046
#3	1926	.2908	.0173	-.0001	1666	.0010	.0019	69.77	5.999
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	95.44	20.27	8.181	8275	0.263	0.026	1.356	0.668	0.319
Stddev	.31	.01	.010	.0003	.0016	.0000	.005	.0002	.0001
%RSD	.3245	.0254	.1210	.0390	6.126	1.245	.3592	.3078	.3175
#1	95.52	20.28	8.174	8272	.0271	.0026	1.360	.0666	.0318
#2	95.69	20.28	8.192	8274	.0272	.0026	1.357	.0670	.0320
#3	95.09	20.27	8.177	8278	.0244	.0025	1.351	.0668	.0319
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	3.301	.0060	.0068	9176	-.0001	0.851	3.505		
Stddev	.001	.0000	.0001	.0010	.0012	.0007	.017		
%RSD	.0326	.6930	1.276	.1102	2342.	.8075	.4786		
#1	3.302	.0059	.0067	9181	-.0013	0.853	3.515		
#2	3.301	.0060	.0068	9183	-.0003	0.843	3.514		
#3	3.300	.0060	.0067	9164	-.0012	0.856	3.485		

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Sample Name: jc85321-3 Acquired: 4/3/2019 17:53:51 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	112010.	10835.	4541.0	9315.4
Stddev	37.	45.	1.8	2.2
%RSD	.03276	.41913	.04062	.02384
#1	112000.	10846.	4541.4	9317.4
#2	111980.	10785.	4542.7	9315.9
#3	112050.	10874.	4539.0	9313.0

Sample Name: mp13693-b1 Acquired: 4/3/2019 17:59:04 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.889	1.875	1.892	1.848	1.872	1.852	1.885	1.865
Stddev	.002	.004	.001	.003	.002	.003	.001	.002
%RSD	.1220	.2316	.0748	.1461	.1145	.1483	.0686	.1268
#1	1.891	1.874	1.894	1.851	1.871	1.854	1.887	1.867
#2	1.889	1.880	1.891	1.848	1.870	1.849	1.884	1.863
#3	1.886	1.872	1.891	1.845	1.874	1.852	1.885	1.865
Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.377	1.839	1.891	1.876	1.960	1.878	1.849	1.899
Stddev	.004	.001	.002	.002	.004	.001	.003	.001
%RSD	.1872	.0784	.1225	.1085	.2026	.0288	.1411	.0497
#1	2.378	1.840	1.894	1.878	1.957	1.878	1.852	1.899
#2	2.381	1.837	1.891	1.874	1.958	1.879	1.847	1.900
#3	2.372	1.839	1.889	1.876	1.964	1.878	1.850	1.898
Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	23.93	24.14	24.20	23.56	23.73	23.98	1.854	1.901
Stddev	.06	.05	.14	.14	.07	.03	.002	.001
%RSD	.2522	.2227	.5747	.6031	.2982	.1200	.0852	.0331
#1	24.00	24.14	24.22	23.62	23.80	23.98	1.855	1.901
#2	23.93	24.19	24.33	23.67	23.74	24.01	1.853	1.901
#3	23.88	24.08	24.05	23.40	23.66	23.96	1.853	1.902
Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	0.767	1.957	1.881	1.879	1.337	1.882	-0.0506	-0.007
Stddev	.0008	.002	.003	.003	.005	.002	.0034	.0007
%RSD	1.094	.0975	.1433	.1487	.3949	.0853	6.747	99.34
#1	0.767	1.959	1.881	1.882	1.331	1.883	-0.0516	-0.005
#2	0.775	1.955	1.884	1.876	1.338	1.880	-0.0535	-0.015
#3	0.758	1.956	1.878	1.879	1.341	1.883	-0.0468	-0.001

7.3  
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Sample Name: mp13693-b1 Acquired: 4/3/2019 17:59:04 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Li6707	P_1774		
Units	ppm	ppm		
Avg	-0.018	1.911		
Stddev	.0010	.010		
%RSD	55.18	.5368		
#1	-0.027	1.904		
#2	-0.008	1.907		
#3	-0.018	1.923		
Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	108320.	10484.	4359.2	9083.6
Stddev	104.	56.	5.0	10.1
%RSD	.09635	.53425	.11563	.11150
#1	108200.	10477.	4353.7	9072.3
#2	108330.	10431.	4360.4	9091.8
#3	108410.	10543.	4363.6	9086.8

Sample Name: mp13693-mb1 Acquired: 4/3/2019 18:04:07 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	0.002	0.001	0.003	0.003	0.014	0.005	0.004	0.004	0.001
Stddev	.0002	.0000	.0002	.0002	.0002	.0005	.0000	.0001	.0002
%RSD	92.16	4.689	51.94	59.47	12.76	91.47	6.281	21.15	237.0
#1	.0003	.0001	.0002	.0002	.0012	.0002	.0004	.0005	-0.002
#2	.0003	.0001	.0003	.0002	.0015	.0002	.0004	.0004	0.003
#3	-0.0000	.0001	.0005	.0005	.0014	.0010	.0004	.0003	.0001
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	0.005	0.065	-0.005	0.003	0.005	0.009	-0.002	0.163	0.415
Stddev	.0002	.0001	.0001	.0016	.0007	.0012	.0007	.0030	.0049
%RSD	32.29	.9337	11.57	564.8	144.1	133.1	322.5	18.26	11.72
#1	.0005	.0065	-0.005	.0019	.0011	.0022	-0.009	.0197	.0359
#2	.0006	.0065	-0.005	.0003	.0005	-0.002	-0.001	.0145	.0444
#3	.0003	.0064	-0.004	-0.013	-0.002	.0007	.0004	.0147	.0442
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	0.193	0.186	0.195	0.414	0.015	0.007	0.083	0.247	0.003
Stddev	.0046	.0195	.0324	.0073	.0001	.0002	.0010	.0001	.0001
%RSD	23.61	10.4	166.4	17.59	7.000	26.17	11.63	.5035	40.15
#1	.0179	-0.0036	.0110	.0445	.0013	.0008	.0076	.0245	.0002
#2	.0245	.0325	.0553	.0331	.0015	.0005	.0094	.0247	.0003
#3	.0157	.0271	-0.0078	.0467	.0015	.0008	.0079	.0248	.0005
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	0.006	0.085	0.006	0.069	-0.002	0.003	0.245		
Stddev	.0002	.0014	.0003	.0008	.0013	.0003	.0006		
%RSD	34.01	16.46	44.11	11.31	601.9	108.9	2.543		
#1	.0008	.0093	.0007	.0078	.0013	.0005	.0240		
#2	.0004	.0093	.0009	.0062	-0.010	-0.001	.0243		
#3	.0005	.0069	.0003	.0068	-0.009	.0004	.0252		

Sample Name: mp13693-mb1 Acquired: 4/3/2019 18:04:07 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	113130.	10711.	4480.0	9904.8
Stddev	309.	25.	3.0	8.4
%RSD	.27269	.23043	.06586	.08432
#1	113160.	10722.	4476.6	9896.8
#2	113420.	10728.	4481.3	9903.9
#3	112810.	10683.	4482.1	9913.5

Sample Name: mp13693-b2 Acquired: 4/3/2019 18:09:35 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.814	1.796	1.837	1.780	1.813	1.787	1.820	1.801
Stddev	.002	.005	.002	.003	.001	.002	.002	.002
%RSD	.0999	.3035	.1205	.1658	.0699	.0917	.1235	.0917
#1	1.815	1.802	1.839	1.781	1.815	1.788	1.823	1.799
#2	1.815	1.793	1.839	1.782	1.812	1.786	1.818	1.802
#3	1.812	1.793	1.835	1.777	1.813	1.785	1.820	1.800

Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.316	1.771	1.831	1.807	1.902	1.818	1.790	1.832
Stddev	.0003	.001	.004	.002	.009	.002	.003	.004
%RSD	.1263	.0614	.2136	.0974	.4957	.1275	.1374	.2091
#1	.2317	1.772	1.835	1.809	1.913	1.820	1.792	1.836
#2	.2318	1.770	1.831	1.806	1.895	1.817	1.791	1.830
#3	.2312	1.771	1.827	1.806	1.898	1.816	1.787	1.829

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	22.92	23.13	23.11	22.37	22.60	22.96	1.790	1.824
Stddev	.02	.04	.08	.17	.03	.03	.004	.003
%RSD	.1064	.1881	.3580	.7457	.1327	.1318	.2471	.1645
#1	22.93	23.18	23.20	22.53	22.60	22.98	1.787	1.826
#2	22.93	23.10	23.05	22.37	22.57	22.96	1.795	1.825
#3	22.89	23.11	23.07	22.20	22.63	22.92	1.788	1.821

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	0.687	1.883	1.801	1.807	1.199	1.810	W -.0486	0.009
Stddev	.0011	.004	.004	.001	.005	.001	.0005	.001
%RSD	1.612	.2358	.2126	.0376	.4111	.0475	.9623	6.780
#1	.0677	1.888	1.806	1.807	1.194	1.811	-.0483	.0009
#2	.0699	1.879	1.800	1.806	1.203	1.809	-.0491	.0009
#3	.0686	1.882	1.798	1.806	1.202	1.809	-.0484	.0010

7.3  
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Sample Name: mp13693-b2 Acquired: 4/3/2019 18:09:35 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Li6707	P_1774
Units	ppm	ppm
Avg	-0.0009	1.848
Stddev	.0012	.004
%RSD	124.7	.2419
#1	-0.0019	1.853
#2	-0.0014	1.845
#3	.0004	1.846

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	108540.	10603.	4379.6	9141.7
Stddev	81.	68.	6.6	8.3
%RSD	.07427	.64386	.15161	.09099
#1	108450.	10536.	4373.4	9132.9
#2	108560.	10672.	4378.7	9142.7
#3	108610.	10602.	4386.6	9149.4

Sample Name: jc85075-1 Acquired: 4/3/2019 18:14:37 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	0.096	0.003	0.006	0.005	0.073	0.086	0.182	0.047	0.006
Stddev	.0001	.0000	.0003	.0001	.0001	.0002	.0001	.0002	.0002
%RSD	.7855	6.546	41.43	13.61	1.481	1.786	.3300	5.196	41.05
#1	.0097	.0003	.0005	.0005	.0074	.0087	.0182	.0050	.0007
#2	.0095	.0003	.0004	.0006	.0072	.0085	.0182	.0048	.0003
#3	.0097	.0003	.0009	.0006	.0074	.0084	.0183	.0045	.0007

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	0.007	0.1700	0.018	-0.005	0.278	0.019	0.011	0.2410	2.955
Stddev	.0002	.0007	.0006	.0008	.0005	.0019	.0011	.0022	.018
%RSD	32.08	.3930	34.23	149.9	1.845	99.89	95.24	.9117	.6145
#1	.0009	.1693	.0026	.0002	.272	-0.003	.0024	.2427	2.939
#2	.0005	.1706	.0015	-0.005	.0280	.0030	.0005	.2417	2.951
#3	.0007	.1699	.0015	-0.013	.0281	.0030	.0005	.2385	2.975

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.202	8.256	6.089	2.144	0.049	0.016	6.129	0.347	0.136
Stddev	.009	.0150	.0196	.012	.0007	.0001	.0018	.0003	.0001
%RSD	.2737	1.813	3.216	.5445	13.53	9.194	.2994	.9596	.6258
#1	3.191	.8095	.5931	2.150	.0047	.0015	6.108	.0343	.0135
#2	3.208	.8282	.6308	2.131	.0044	.0015	6.141	.0350	.0136
#3	3.205	.8391	.6027	2.152	.0057	.0018	6.137	.0349	.0136

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	0.107	0.134	0.033	0.5133	0.007	0.003	0.1574
Stddev	.0003	.0015	.0001	.0031	.0007	.0007	.0014
%RSD	3.222	11.27	3.519	5.967	108.9	228.2	.9055
#1	.0110	.0151	.0034	.5165	.0015	.0002	.1574
#2	.0108	.0125	.0034	.5129	.0005	.0010	.1588
#3	.0103	.0126	.0032	.5105	.0000	-.0003	.1560

Sample Name: jc85075-1 Acquired: 4/3/2019 18:14:37 Type: Unk  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	113270.	10744.	4447.3	9845.2
Stddev	159.	35.	15.7	34.0
%RSD	.14017	.32991	.35271	.34522
#1	113410.	10785.	4462.5	9871.9
#2	113320.	10719.	4431.2	9807.0
#3	113100.	10729.	4448.1	9856.9

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Sample Name: mp13693-sd1 Acquired: 4/3/2019 18:19:59 Type: Unk  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 5.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.0090</b>	<b>.0002</b>	<b>-0.002</b>	<b>.0004</b>	<b>.0059</b>	<b>.0084</b>	<b>.0191</b>	<b>.0041</b>	<b>.0014</b>
Stddev	.0012	.0006	.0001	.0012	.0009	.0018	.0001	.0008	.0018
%RSD	13.48	329.3	44.82	281.6	15.84	20.92	.3161	19.60	128.4
#1	.0082	-.0000	-.0003	-.0008	.0048	.0077	.0191	.0045	.0009
#2	.0104	.0008	-.0001	.0004	.0066	.0104	.0191	.0032	.0034
#3	.0084	-.0003	-.0002	.0017	.0062	.0071	.0192	.0047	-.0001
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.0006</b>	<b>.1772</b>	<b>.0018</b>	<b>-0.0024</b>	<b>.0279</b>	<b>.0074</b>	<b>-0.0020</b>	<b>.1866</b>	<b>3.012</b>
Stddev	.0007	.0005	.0019	.0010	.0032	.0030	.0026	.0334	.010
%RSD	106.8	.2765	102.1	43.82	11.35	39.66	131.7	17.92	.3399
#1	.0006	.1773	.0035	-.0033	.0294	.0070	-.0021	.1804	3.023
#2	.0013	.1775	-.0002	-.0013	.0301	.0106	.0007	.1567	3.005
#3	-.0000	.1766	.0021	-.0025	.0243	.0048	-.0045	.2226	3.006
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>3.137</b>	<b>.8405</b>	<b>.4652</b>	<b>2.128</b>	<b>.0025</b>	<b>.0010</b>	<b>.6123</b>	<b>.0326</b>	<b>.0131</b>
Stddev	.026	.0750	.0935	.006	.0010	.0003	.0040	.0013	.0002
%RSD	.8329	8.925	20.10	.3063	40.60	29.65	.6467	4.028	1.499
#1	3.127	.9208	.5468	2.131	.0019	.0010	.6100	.0313	.0130
#2	3.166	.7722	.4856	2.133	.0019	.0012	.6168	.0326	.0131
#3	3.116	.8285	.3631	2.121	.0036	.0007	.6100	.0340	.0133
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	<b>.0104</b>	<b>.0339</b>	<b>.0021</b>	<b>.5225</b>	<b>.0044</b>	<b>.0004</b>	<b>.1576</b>		
Stddev	.0002	.0013	.0003	.0009	.0020	.0070	.0049		
%RSD	1.843	3.934	13.56	.1793	44.89	1663.	3.079		
#1	.0104	.0353	.0019	.5231	.0061	.0001	.1612		
#2	.0105	.0328	.0024	.5215	.0049	-.0064	.1596		
#3	.0102	.0334	.0019	.5231	.0022	.0076	.1521		

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7.3  
7

Sample Name: mp13693-sd1 Acquired: 4/3/2019 18:19:59 Type: Unk  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 5.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	112770.	10575.	4481.4	9858.7
Stddev	149.	29.	12.2	19.9
%RSD	.13195	.27511	.27261	.20156
#1	112930.	10542.	4486.7	9862.0
#2	112630.	10588.	4467.5	9837.4
#3	112740.	10596.	4490.1	9876.7

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Sample Name: jc85075-2 Acquired: 4/3/2019 18:25:27 Type: Unk  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.0147</b>	<b>.0000</b>	<b>.0003</b>	<b>.0004</b>	<b>.0101</b>	<b>.0114</b>	<b>.0178</b>	<b>.0066</b>	<b>.0007</b>
Stddev	.0002	.0000	.0001	.0001	.0002	.0003	.0001	.0002	.0001
%RSD	1.438	43.76	50.46	31.59	2.012	2.522	.6421	2.566	9.533
#1	.0148	.0000	.0003	.0006	.0102	.0116	.0177	.0067	.0007
#2	.0149	.0000	.0004	.0003	.0103	.0111	.0179	.0064	.0007
#3	.0145	.0000	.0002	.0005	.0099	.0116	.0179	.0066	.0006
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.0009</b>	<b>.0580</b>	<b>.0018</b>	<b>-0.0012</b>	<b>.0118</b>	<b>.0016</b>	<b>.0011</b>	<b>.4176</b>	<b>6.619</b>
Stddev	.0004	.0003	.0009	.0006	.0007	.0010	.0008	.0072	.046
%RSD	43.22	.4411	48.77	50.00	6.260	62.64	72.45	1.727	.7001
#1	.0013	.0583	.0012	-.0005	.0111	.0005	.0017	.4173	6.662
#2	.0009	.0579	.0014	-.0013	.0118	.0019	.0013	.4250	6.624
#3	.0005	.0579	.0028	-.0017	.0126	.0025	.0002	.4106	6.570
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>1.237</b>	<b>3.342</b>	<b>.5803</b>	<b>3.751</b>	<b>.0069</b>	<b>.0007</b>	<b>.7623</b>	<b>.0234</b>	<b>.0184</b>
Stddev	.016	.056	.0097	.007	.0004	.0001	.0017	.0006	.0001
%RSD	1.298	1.660	1.667	.1842	5.946	15.87	.2192	2.745	.3437
#1	1.252	3.403	.5873	3.759	.0073	.0007	.7640	.0241	.0185
#2	1.239	3.327	.5693	3.750	.0065	.0009	.7607	.0229	.0183
#3	1.220	3.295	.5845	3.745	.0070	.0007	.7622	.0231	.0184
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	<b>.0199</b>	<b>.0043</b>	<b>.0078</b>	<b>1.708</b>	<b>.0008</b>	<b>-0.0004</b>	<b>.2155</b>		
Stddev	.0001	.0010	.0000	.008	.0010	.0006	.0009		
%RSD	.4396	22.61	.6345	.4534	129.0	140.0	.4388		
#1	.0199	.0054	.0079	1.710	-.0001	-.0009	.2158		
#2	.0199	.0040	.0078	1.699	.0018	-.0006	.2144		
#3	.0198	.0036	.0078	1.715	.0006	.0003	.2161		

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Sample Name: jc85075-2 Acquired: 4/3/2019 18:25:27 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	113050.	10695.	4453.4	9824.1
Stddev	360.	100.	5.3	14.1
%RSD	.31823	.93163	.11983	.14402

#1	113370.	10624.	4459.4	9836.7
#2	113140.	10653.	4451.6	9826.9
#3	112660.	10809.	4449.1	9808.8

Sample Name: ccv Acquired: 4/3/2019 18:30:49 Type: QC  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.957	1.940	1.968	1.946	1.949	1.919	1.960	1.962	2.411
Stddev	.004	.005	.002	.001	.006	.003	.002	.002	.0005
%RSD	.2103	.2709	.0813	.0353	.3326	.1302	.0900	.0906	.1874

#1	1.960	1.947	1.970	1.946	1.952	1.918	1.962	1.962	2.413
#2	1.958	1.938	1.968	1.946	1.942	1.922	1.958	1.961	2.405
#3	1.952	1.937	1.967	1.947	1.954	1.917	1.961	1.964	2.413

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
 Value Range

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.926	1.965	1.961	2.017	1.968	1.951	1.978	38.61	38.94
Stddev	.002	.002	.001	.006	.002	.004	.003	.14	.18
%RSD	.0797	.1037	.0562	.3243	.0777	.2174	.1343	.3681	.4500

#1	1.928	1.963	1.962	2.024	1.967	1.955	1.981	38.67	39.07
#2	1.925	1.965	1.960	2.010	1.970	1.952	1.976	38.72	39.00
#3	1.925	1.967	1.962	2.018	1.969	1.946	1.977	38.45	38.74

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
 Value Range

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	38.87	38.18	38.40	38.60	2.000	1.990	4.973	2.005	1.950
Stddev	.10	.15	.14	.13	.001	.001	.004	.004	.004
%RSD	.2573	.3994	.3587	.3298	.0401	.0285	.0741	.2075	.1956

#1	38.94	38.30	38.54	38.71	2.000	1.990	4.976	2.010	1.954
#2	38.91	38.23	38.40	38.62	2.000	1.989	4.969	2.002	1.950
#3	38.75	38.01	38.26	38.46	2.001	1.989	4.973	2.003	1.947

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
 Value Range

Sample Name: ccv Acquired: 4/3/2019 18:30:49 Type: QC  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.949	1.961	1.952	1.963	1.975	1.921	1.973
Stddev	.001	.001	.002	.003	.001	.007	.003
%RSD	.0433	.0689	.1018	.1419	.0453	.3921	.1663

#1	1.950	1.962	1.954	1.961	1.976	1.929	1.972
#2	1.949	1.962	1.952	1.962	1.975	1.921	1.971
#3	1.949	1.960	1.951	1.966	1.974	1.914	1.977

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
 Value Range

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	107240.	10331.	4341.8	8867.1
Stddev	102.	71.	4.8	7.5
%RSD	.09534	.69107	.10966	.08411

#1	107170.	10289.	4344.3	8869.8
#2	107350.	10291.	4336.3	8858.7
#3	107180.	10414.	4344.7	8872.8

Sample Name: ccb Acquired: 4/3/2019 18:35:50 Type: QC  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.000	0.000	-0.000	-0.000	-0.001	-0.004	-0.000	0.001	0.004
Stddev	0.001	0.001	0.003	0.002	0.004	0.002	0.000	0.001	0.003
%RSD	198.4	185.3	787.3	3007.	315.0	48.06	140.4	95.96	76.42

#1	0.001	0.000	0.000	0.001	0.002	-0.002	0.000	0.001	0.001
#2	-0.001	-0.002	-0.002	-0.001	0.000	-0.005	-0.001	0.003	0.006
#3	-0.001	-0.000	-0.004	-0.002	-0.006	-0.005	-0.000	0.000	0.006

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
 High Limit Low Limit

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	0.002	-0.005	0.002	-0.001	-0.003	0.004	0.004	-0.004	-0.072
Stddev	0.001	0.001	0.002	0.003	0.004	0.004	0.001	0.058	0.007
%RSD	49.29	19.92	107.6	345.3	124.9	97.97	28.22	87.48	9.415

#1	0.003	-0.006	-0.000	-0.003	0.000	0.005	0.005	-0.000	-0.076
#2	0.004	-0.004	0.002	-0.002	-0.002	0.008	0.004	-0.091	-0.076
#3	0.001	-0.005	0.005	0.003	-0.007	-0.000	0.003	-0.108	-0.064

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
 High Limit Low Limit

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.045	-0.019	0.317	0.025	0.006	0.005	0.005	-0.002	-0.001
Stddev	0.023	0.145	0.207	0.095	0.004	0.001	0.005	0.006	0.001
%RSD	50.40	767.9	65.32	378.8	64.31	18.38	113.5	311.0	55.34

#1	-0.035	0.025	0.500	0.090	0.011	0.005	-0.001	0.004	-0.002
#2	-0.071	0.099	0.092	-0.084	0.005	0.006	0.009	-0.008	-0.001
#3	-0.029	-0.181	0.361	0.070	0.003	0.004	0.006	-0.003	-0.001

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: ccb Acquired: 4/3/2019 18:35:50 Type: QC  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-0.004</b>	<b>.0029</b>	<b>.0000</b>	<b>-0.008</b>	<b>-0.009</b>	<b>.0013</b>	<b>-0.001</b>
Stddev	.0001	.0010	.0001	.0013	.0008	.0002	.0011
%RSD	15.96	35.15	33.92	168.3	80.95	17.24	144.1

#1	-0.005	.0036	-0.001	-0.020	-0.016	.0012	.0011
#2	-0.003	.0017	.0000	-0.008	-0.001	.0012	-0.004
#3	-0.004	.0034	.0001	.0005	-0.011	.0016	-0.010

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
 High Limit  
 Low Limit

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>112480.</b>	<b>10483.</b>	<b>4483.3</b>	<b>9877.2</b>
Stddev	215.	69.	10.3	14.8
%RSD	.19153	.65412	.23072	.14999

#1	112340.	10404.	4480.0	9879.0
#2	112380.	10521.	4494.9	9891.0
#3	112730.	10524.	4475.0	9861.6

Sample Name: jc85075-3 Acquired: 4/3/2019 18:41:20 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.0505</b>	<b>-0.0000</b>	<b>.0001</b>	<b>.0001</b>	<b>.0038</b>	<b>.0041</b>	<b>.0079</b>	<b>.0022</b>	<b>.0001</b>
Stddev	.0005	.0000	.0001	.0001	.0002	.0002	.0000	.0002	.0001
%RSD	.9263	63.91	77.83	161.8	5.655	5.383	.2145	8.430	15.1

#1	.0499	-0.001	.0000	.0000	.0039	.0044	.0079	.0024	-0.001
#2	.0507	-0.001	.0002	.0002	.0039	.0040	.0079	.0021	.0002
#3	.0508	-0.000	.0001	-0.000	.0035	.0041	.0079	.0022	.0001

Elem V\_2924 Zn2062 As1890 Tl1908 Pb2203 Se1960 Sb2068 Al3961 Ca3179  
 Units ppm ppm ppm ppm ppm ppm ppm ppm  
 Avg **.0004** **.0382** **.0013** **-0.006** **.0124** **.0008** **-0.0005** **.1786** **2.349**  
 Stddev .0002 .0014 .0011 .0004 .0006 .0007 .0011 .0050 .018  
 %RSD 49.49 3.698 89.15 68.49 4.770 83.37 242.2 2.787 .7782

#1	.0002	.0398	.0014	-0.003	.0125	.0003	-0.004	.1730	2.335
#2	.0006	.0376	.0024	-0.011	.0129	.0006	-0.016	.1826	2.342
#3	.0003	.0371	.0001	-0.004	.0118	.0016	.0006	.1801	2.369

Elem Fe2599 Mg2790 K\_7664 Na5895 B\_2089 Mo2020 Si2124 Sn1899 Sr4077  
 Units ppm ppm ppm ppm ppm ppm ppm ppm  
 Avg **.4547** **.6069** **.4219** **2.761** **.0045** **.0009** **.5031** **.0220** **.0142**  
 Stddev .0021 .0211 .0263 .016 .0007 .0001 .0017 .0003 .0001  
 %RSD 4.553 3.475 6.227 .5684 16.50 11.15 .3316 1.350 .8454

#1	.4524	.5930	.4162	2.755	.0037	.0008	.5020	.0223	.0142
#2	.4551	.5964	.3989	2.750	.0052	.0010	.5022	.0217	.0142
#3	.4565	.6311	.4505	2.779	.0046	.0010	.5050	.0219	.0144

Elem Ti3349 W\_2079 Zr3391 S\_1820 Bi2230 Li6707 P\_1774  
 Units ppm ppm ppm ppm ppm ppm ppm  
 Avg **.0057** **.0052** **.0039** **.4421** **-0.007** **.0000** **.1958**  
 Stddev .0002 .0005 .0002 .0028 .0009 .0018 .0011  
 %RSD 3.688 8.771 5.159 6.258 120.0 237600. .5703

#1	.0058	.0047	.0041	.4417	-0.008	-0.010	.1946
#2	.0055	.0056	.0037	.4396	.0002	-0.011	.1962
#3	.0058	.0053	.0040	.4451	-0.016	.0021	.1967

7.3  
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Sample Name: jc85075-3 Acquired: 4/3/2019 18:41:20 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>113330.</b>	<b>10709.</b>	<b>4466.9</b>	<b>9866.9</b>
Stddev	413.	53.	3.5	7.3
%RSD	.36458	.49508	.07747	.07395

#1	113640.	10745.	4470.9	9873.9
#2	113480.	10735.	4464.9	9859.3
#3	112860.	10648.	4464.9	9867.5

Sample Name: jc85075-4 Acquired: 4/3/2019 18:46:45 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.0169</b>	<b>-0.0000</b>	<b>.0019</b>	<b>.0002</b>	<b>.0128</b>	<b>.0104</b>	<b>.0188</b>	<b>.0110</b>	<b>.0002</b>
Stddev	.0006	.0000	.0001	.0001	.0002	.0002	.0001	.0004	.0002
%RSD	3.501	116.6	6.304	35.63	1.729	1.444	.6985	3.499	81.31

#1	.0172	.0000	.0020	.0001	.0127	.0105	.0187	.0112	.0001
#2	.0162	-0.000	.0019	.0003	.0127	.0103	.0189	.0106	.0004
#3	.0174	-0.001	.0017	.0002	.0131	.0106	.0188	.0112	.0001

Elem V\_2924 Zn2062 As1890 Tl1908 Pb2203 Se1960 Sb2068 Al3961 Ca3179  
 Units ppm ppm ppm ppm ppm ppm ppm ppm  
 Avg **.0012** **.1058** **.0015** **-0.005** **.0840** **.0011** **.0037** **.4647** **5.736**  
 Stddev .0002 .0003 .0006 .0010 .0003 .0008 .0011 .0165 .193  
 %RSD 16.66 .2706 41.88 207.9 .3956 70.16 28.63 3.552 3.358

#1	.0010	.1060	.0009	.0007	.0840	.0019	.0025	.4798	5.860
#2	.0014	.1060	.0014	-0.010	.0844	.0010	.0043	.4471	5.514
#3	.0011	.1055	.0022	-0.010	.0837	.0004	.0043	.4672	5.835

Elem Fe2599 Mg2790 K\_7664 Na5895 B\_2089 Mo2020 Si2124 Sn1899 Sr4077  
 Units ppm ppm ppm ppm ppm ppm ppm ppm  
 Avg **1.155** **1.830** **.4901** **3.363** **.0044** **.0009** **1.012** **.0407** **.0294**  
 Stddev .041 .101 .0325 .119 .0002 .0002 .002 .0002 .0009  
 %RSD 3.565 5.504 6.640 3.532 3.768 25.85 .1803 .5207 3.222

#1	1.179	1.880	.5063	3.431	.0042	.0006	1.011	.0405	.0298
#2	1.107	1.714	.4526	3.226	.0044	.0009	1.014	.0409	.0283
#3	1.177	1.896	.5113	3.422	.0045	.0011	1.012	.0408	.0301

Elem Ti3349 W\_2079 Zr3391 S\_1820 Bi2230 Li6707 P\_1774  
 Units ppm ppm ppm ppm ppm ppm ppm  
 Avg **.0194** **.0041** **.0025** **2.031** **-0.006** **.0027** **.2935**  
 Stddev .0001 .0003 .0001 .002 .0004 .0004 .0010  
 %RSD .7666 7.333 3.558 .1078 62.97 14.36 .3383

#1	.0193	.0039	.0026	2.028	-0.003	.0030	.2924
#2	.0196	.0045	.0025	2.032	-0.005	.0023	.2944
#3	.0193	.0040	.0024	2.032	-0.011	.0027	.2936

Sample Name: jc85075-4 Acquired: 4/3/2019 18:46:45 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	112680.	10750.	4456.5	9817.8
Stddev	457.	286.	7.6	10.3
%RSD	.40588	2.6575	.17091	.10453
#1	112200.	10570.	4448.0	9806.4
#2	112710.	11079.	4458.7	9820.8
#3	113120.	10601.	4462.7	9826.2

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Sample Name: jc85075-5 Acquired: 4/3/2019 18:52:06 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0129	-.0000	.0010	.0003	.0050	.0111	.0104	.0037	.0002
Stddev	.0003	.0001	.0003	.0001	.0003	.0005	.0001	.0001	.0001
%RSD	2.002	545.5	28.91	22.85	6.053	4.517	1.111	2.918	60.21
#1	.0129	-.0001	.0009	.0003	.0046	.0112	.0104	.0038	.0001
#2	.0132	.0000	.0008	.0002	.0052	.0115	.0103	.0037	.0002
#3	.0126	.0000	.0013	.0002	.0051	.0105	.0105	.0036	.0004
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0007	.1954	.0015	-.0007	.0109	.0015	.0008	.2705	3.394
Stddev	.0002	.0005	.0009	.0005	.0005	.0013	.0013	.0094	.016
%RSD	29.47	.2329	60.38	66.28	4.528	87.54	162.9	3.457	4626
#1	.0008	.1959	.0005	-.0012	.0106	.0013	-.0006	.2700	3.393
#2	.0008	.1955	.0022	-.0002	.0115	.0003	.0009	.2801	3.409
#3	.0004	.1950	.0019	-.0007	.0107	.0028	.0021	.2614	3.378
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6131	1.069	.5152	3.020	.0039	.0007	.8102	.0257	.0117
Stddev	.0056	.010	.0074	.003	.0003	.0001	.0013	.0001	.0001
%RSD	.9182	.9099	1.445	.1118	8.686	9.144	.1566	.5411	8080
#1	.6129	1.061	.5150	3.017	.0039	.0007	.8115	.0257	.0117
#2	.6188	1.080	.5078	3.024	.0042	.0007	.8090	.0259	.0116
#3	.6075	1.067	.5227	3.019	.0035	.0008	.8102	.0259	.0118
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	.0111	.0024	.0023	1.232	.0005	-.0002	.1696		
Stddev	.0003	.0007	.0000	.006	.0010	.0005	.0012		
%RSD	2.399	30.58	1.195	.5170	215.6	201.6	.7271		
#1	.0109	.0025	.0023	1.236	-.0006	-.0002	.1699		
#2	.0109	.0030	.0023	1.224	.0006	.0002	.1683		
#3	.0114	.0016	.0023	1.235	.0014	-.0007	.1707		

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7.3  
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Sample Name: jc85075-5 Acquired: 4/3/2019 18:52:06 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	113310.	10610.	4467.1	9876.3
Stddev	439.	31.	8.2	12.3
%RSD	.38750	.28837	.18422	.12483
#1	113630.	10609.	4458.5	9866.2
#2	112810.	10580.	4467.8	9872.7
#3	113480.	10641.	4474.9	9890.0

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Sample Name: jc85075-6 Acquired: 4/3/2019 18:57:29 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0082	-.0000	.0002	.0002	.0027	.0050	.0065	.0019	.0001
Stddev	.0003	.0001	.0001	.0001	.0002	.0001	.0000	.0002	.0002
%RSD	3.789	291.5	72.86	81.20	8.930	1.885	.5478	11.90	140.1
#1	.0085	-.0001	.0001	.0000	.0029	.0051	.0065	.0016	.0000
#2	.0079	.0001	.0001	.0001	.0024	.0051	.0065	.0020	.0004
#3	.0084	-.0001	.0003	.0003	.0028	.0049	.0065	.0020	.0000
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0005	.0471	.0015	-.0008	.0032	.0014	.0010	.1100	2.100
Stddev	.0001	.0001	.0013	.0005	.0005	.0003	.0012	.0116	.003
%RSD	24.02	.1997	81.66	64.91	15.44	25.38	121.0	10.52	.1200
#1	.0004	.0471	.0005	-.0013	.0026	.0016	.0024	.0991	2.102
#2	.0005	.0470	.0012	-.0010	.0036	.0010	.0004	.1221	2.100
#3	.0006	.0472	.0030	-.0002	.0033	.0015	.0002	.1089	2.097
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1614	.8946	.4572	3.608	.0049	.0006	.3072	.0259	.0083
Stddev	.0039	.0171	.0113	.012	.0006	.0001	.0002	.0002	.0001
%RSD	2.389	1.912	2.465	.3423	11.66	18.59	.0695	.7718	.9916
#1	.1658	.8863	.4482	3.602	.0047	.0005	.3069	.0260	.0083
#2	.1585	.8832	.4699	3.600	.0056	.0007	.3073	.0260	.0083
#3	.1598	.9143	.4537	3.622	.0045	.0005	.3072	.0257	.0082
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	.0036	.0027	.0034	1.501	-.0000	.0011	.2691		
Stddev	.0002	.0005	.0000	.007	.0010	.0006	.0013		
%RSD	5.730	20.14	1.366	.4552	19160.	58.02	.4942		
#1	.0034	.0021	.0034	1.500	-.0003	.0015	.2676		
#2	.0037	.0031	.0034	1.508	-.0007	.0004	.2699		
#3	.0038	.0029	.0035	1.494	.0011	.0014	.2699		

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Sample Name: jc85075-6 Acquired: 4/3/2019 18:57:29 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	113080.	10614.	4457.6	9856.5
Stddev	211.	56.	2.9	8.4
%RSD	.18672	.53121	.06466	.08548
#1	113220.	10553.	4456.2	9848.6
#2	112840.	10624.	4455.7	9865.4
#3	113190.	10664.	4461.0	9855.4

Sample Name: jc85075-8 Acquired: 4/3/2019 19:02:51 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0388	-0.001	.0002	.0001	.0044	.9947	.0110	.0025	.0104
Stddev	.0003	.0001	.0001	.0001	.0002	.0016	.0001	.0002	.0002
%RSD	.8359	93.25	40.24	158.4	4.234	.1559	.7274	8.437	2.391
#1	.0387	.0000	.0002	.0002	.0042	.9937	.0110	.0022	.0104
#2	.0385	-0.001	.0001	.0001	.0046	.9938	.0111	.0026	.0099
#3	.0391	-0.001	.0002	.0001	.0045	.9965	.0109	.0025	.0101
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0008	1.079	.0019	-0.0012	.0093	.0022	.0104	.3692	3.987
Stddev	.0001	.001	.0005	.0006	.0003	.0007	.0006	.0034	.016
%RSD	13.86	.0731	23.90	47.77	3.384	32.54	5.577	.9076	.3888
#1	.0007	1.080	.0015	-0.010	.0090	.0030	.0109	.3729	4.000
#2	.0009	1.080	.0017	-0.007	.0096	.0016	.0106	.3686	3.970
#3	.0009	1.079	.0024	-0.018	.0093	.0021	.0098	.3662	3.991
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5132	1.476	.7643	2.808	.0145	.0007	.9471	.2152	.0294
Stddev	.0107	.016	.1106	.016	.0005	.0001	.0023	.0008	.0002
%RSD	2.082	1.102	1.387	.5689	3.277	20.96	.2425	.3839	.7991
#1	.5067	1.494	.7744	2.794	.0149	.0005	.9468	.2146	.0295
#2	.5074	1.469	.7654	2.826	.0140	.0008	.9495	.2150	.0291
#3	.5255	1.464	.7532	2.805	.0146	.0007	.9449	.2162	.0296
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	.0120	.0040	.0037	.8188	.0005	.0004	.3252		
Stddev	.0001	.0006	.0001	.0054	.0014	.0007	.0008		
%RSD	9.141	16.24	1.895	.6536	281.4	196.0	.2603		
#1	.0119	.0034	.0037	.8154	.0018	.0005	.3251		
#2	.0119	.0047	.0037	.8160	.0009	.0010	.3261		
#3	.0121	.0038	.0038	.8250	.0006	.0004	.3245		

7.3  
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Sample Name: jc85075-8 Acquired: 4/3/2019 19:02:51 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	112900.	10572.	4464.9	9821.3
Stddev	125.	37.	3.9	2.7
%RSD	.11106	.34769	.08758	.02745
#1	113030.	10603.	4468.2	9824.1
#2	112780.	10582.	4465.9	9818.7
#3	112890.	10532.	4460.6	9821.1

Sample Name: jc85075-9 Acquired: 4/3/2019 19:08:14 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0223	-0.000	.0002	.0001	.0043	.0347	.0088	.0025	.0000
Stddev	.0002	.0001	.0001	.0000	.0002	.0002	.0001	.0002	.0004
%RSD	.9476	669.8	65.29	64.55	3.874	.5828	.7075	7.365	1383.
#1	.0224	-0.001	.0001	.0000	.0042	.0349	.0089	.0023	.0001
#2	.0221	.0001	.0002	.0001	.0045	.0347	.0088	.0026	.0004
#3	.0225	.0000	.0004	.0000	.0042	.0345	.0088	.0026	-.0004
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0006	.0767	.0012	-0.0007	.0073	.0017	.0012	.1535	1.981
Stddev	.0002	.0002	.0005	.0004	.0002	.0005	.0021	.0057	.007
%RSD	41.45	.3004	37.71	52.20	3.168	29.36	170.0	3.703	.3481
#1	.0004	.0769	.0015	-0.003	.0073	.0017	.0011	.1470	1.986
#2	.0005	.0764	.0014	-0.008	.0076	.0012	.0021	.1567	1.973
#3	.0008	.0767	.0007	-0.011	.0071	.0022	.0027	.1569	1.984
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3040	.8568	.2523	2.222	.0093	.0006	.9394	.0272	.0104
Stddev	.0089	.0178	.0186	.013	.0003	.0002	.0023	.0005	.0001
%RSD	2.933	2.077	7.378	.5794	3.594	27.85	.2411	1.664	.7348
#1	.3142	.8563	.2334	2.232	.0094	.0006	.9386	.0275	.0105
#2	.3000	.8748	.2529	2.227	.0090	.0007	.9376	.0275	.0103
#3	.2977	.8393	.2706	2.208	.0096	.0004	.9419	.0267	.0104
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	.0090	.0022	.0037	.4844	-.0011	-.0014	.2442		
Stddev	.0001	.0002	.0001	.0017	.0011	.0013	.0013		
%RSD	1.153	10.12	3.570	.3469	95.95	96.32	.5516		
#1	.0090	.0022	.0038	.4825	-.0022	-.0019	.2435		
#2	.0088	.0020	.0039	.4854	-.0001	.0001	.2457		
#3	.0090	.0024	.0036	.4853	-.0010	-.0024	.2433		



Sample Name: jc85075-9 Acquired: 4/3/2019 19:08:14 Type: Unk  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	113210.	10584.	4475.7	9867.6
Stddev	451.	7.	5.8	7.2
%RSD	.39814	.06634	.12859	.07299
#1	112940.	10591.	4475.1	9872.9
#2	113730.	10583.	4481.8	9870.5
#3	112960.	10577.	4470.3	9859.4

Sample Name: jc85075-10 Acquired: 4/3/2019 19:13:38 Type: Unk  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0178	-0.0000	.0000	.0001	.0026	.0035	.0064	.0010	.0002
Stddev	.0003	.0001	.0001	.0003	.0002	.0005	.0001	.0002	.0002
%RSD	1.755	218.4	225.7	329.8	6.273	15.26	1.116	22.32	75.68
#1	.0174	-0.0001	-0.0001	.0001	.0028	.0032	.0063	.0012	.0000
#2	.0178	.0000	.0001	-0.0002	.0026	.0033	.0065	.0012	.0003
#3	.0180	-0.0001	.0001	.0004	.0024	.0041	.0063	.0008	.0003
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0005	.0359	.0007	-0.0003	.0037	.0016	.0010	.1276	3.019
Stddev	.0003	.0002	.0005	.0009	.0006	.0013	.0011	.0016	.014
%RSD	46.72	.4323	76.93	330.7	15.68	79.89	104.2	1.258	4565
#1	.0003	.0360	.0009	-0.0000	.0031	.0028	.0018	.1285	3.013
#2	.0005	.0358	.0011	.0005	.0037	.0019	.0015	.1286	3.010
#3	.0008	.0361	.0001	-0.0013	.0042	.0002	-0.0002	.1258	3.035
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2042	.8509	.6606	3.438	.0088	.0005	.9086	.0234	.0087
Stddev	.0012	.0442	.0140	.005	.0002	.0001	.0037	.0007	.0001
%RSD	.5717	5.200	2.117	.1471	2.444	20.42	4.052	2.958	.7343
#1	.2049	.8259	.6628	3.441	.0089	.0004	.9091	.0240	.0087
#2	.2048	.8247	.6734	3.432	.0089	.0006	.9047	.0226	.0088
#3	.2029	.9019	.6457	3.442	.0085	.0007	.9120	.0236	.0088
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	.0072	.0026	.0031	1.272	-0.0001	-0.0003	.2282		
Stddev	.0001	.0006	.0001	.006	.0007	.0010	.0017		
%RSD	1.208	21.36	3.572	.4723	500.3	354.2	.7591		
#1	.0071	.0020	.0032	1.272	-0.0004	-0.0006	.2293		
#2	.0072	.0030	.0030	1.266	.0007	.0008	.2262		
#3	.0072	.0028	.0032	1.278	-0.0007	-0.0011	.2291		

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Sample Name: jc85075-10 Acquired: 4/3/2019 19:13:38 Type: Unk  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	113450.	10568.	4465.7	9819.0
Stddev	227.	26.	7.3	6.2
%RSD	.20017	.24886	.16385	.06284
#1	113530.	10552.	4463.6	9812.8
#2	113630.	10599.	4473.8	9825.1
#3	113190.	10554.	4459.6	9819.2

Sample Name: jc85075-11 Acquired: 4/3/2019 19:19:01 Type: Unk  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0223	-0.0000	.0004	.0001	.0034	.0096	.0098	.0026	-0.0004
Stddev	.0002	.0001	.0001	.0001	.0004	.0001	.0000	.0003	.0004
%RSD	.6743	320.0	36.36	93.08	10.48	1.441	.1417	10.35	87.79
#1	.0225	.0000	.0005	.0002	.0030	.0095	.0098	.0026	-0.0008
#2	.0222	.0000	.0005	-0.0000	.0038	.0098	.0098	.0028	-0.0001
#3	.0224	-0.0001	.0002	.0003	.0034	.0096	.0098	.0023	-0.0003
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0005	.1095	.0013	-0.0009	.0738	.0009	.0012	.2215	3.553
Stddev	.0000	.0006	.0012	.0001	.0005	.0014	.0007	.0070	.017
%RSD	7.453	.5894	91.95	12.30	6.476	152.3	56.60	3.169	.4787
#1	.0005	.1102	.0026	-0.0008	.0740	.0008	.0012	.2169	3.553
#2	.0006	.1089	.0009	-0.0009	.0733	.0023	.0005	.2296	3.536
#3	.0005	.1095	.0003	-0.0010	.0741	-0.0004	.0018	.2180	3.570
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3657	1.100	.5645	2.260	.0090	.0008	1.016	.0241	.0125
Stddev	.0049	.024	.0189	.008	.0005	.0002	.004	.0003	.0001
%RSD	1.329	2.202	3.348	.3605	5.480	21.14	.3456	1.410	.6777
#1	.3713	1.088	.5434	2.262	.0095	.0006	1.020	.0245	.0124
#2	.3625	1.085	.5799	2.251	.0085	.0008	1.015	.0239	.0125
#3	.3633	1.128	.5701	2.267	.0091	.0009	1.013	.0238	.0126
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	.0091	.0026	.0022	6.409	-0.0007	.0009	.2459		
Stddev	.0000	.0002	.0000	.0041	.0004	.0010	.0006		
%RSD	4.504	7.515	2.103	63.27	54.86	108.6	.2316		
#1	.0091	.0028	.0022	6.403	-0.0005	-0.0002	.2465		
#2	.0090	.0024	.0022	6.372	-0.0011	.0015	.2454		
#3	.0091	.0026	.0023	6.452	-0.0004	.0016	.2459		

Sample Name: jc85075-11 Acquired: 4/3/2019 19:19:01 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	113130.	10561.	4477.8	9855.2
Stddev	109.	70.	5.0	1.4
%RSD	.09614	.66354	.11228	.01433
#1	113240.	10523.	4474.2	9856.7
#2	113020.	10642.	4475.6	9854.9
#3	113140.	10518.	4483.5	9853.9

Sample Name: jc85075-12 Acquired: 4/3/2019 19:24:24 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0531	.0001	.0009	.0012	.0091	.0550	.0373	.0079	.0000
Stddev	.0005	.0001	.0001	.0003	.0003	.0002	.0001	.0001	.0002
%RSD	.9489	74.50	9.595	23.74	2.826	4.361	.3986	1.599	2292.
#1	.0530	.0000	.0010	.0014	.0093	.0553	.0374	.0081	.0002
#2	.0526	.0001	.0010	.0012	.0092	.0549	.0374	.0078	.0000
#3	.0536	.0001	.0008	.0009	.0088	.0549	.0371	.0078	-.0002
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0027	.2612	.0031	-.0007	.0152	.0006	.0035	1.284	12.33
Stddev	.0002	.0008	.0007	.0001	.0007	.0018	.0007	.002	.02
%RSD	8.116	.3105	24.25	20.49	4.514	321.7	19.57	.1320	.1547
#1	.0024	.2606	.0022	-.0009	.0160	.0006	.0043	1.285	12.35
#2	.0029	.2609	.0034	-.0007	.0146	.0023	.0032	1.282	12.31
#3	.0027	.2621	.0036	-.0006	.0151	.0013	.0031	1.285	12.32
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.501	3.146	.6017	3.911	.0225	.0013	1.152	.0306	.0503
Stddev	.011	.057	.0388	.019	.0008	.0000	.002	.0006	.0003
%RSD	.7039	1.813	6.457	4.833	3.334	2.257	.1784	2.074	.5768
#1	1.498	3.167	.6415	3.911	.0230	.0012	1.154	.0304	.0503
#2	1.492	3.082	.5639	3.892	.0217	.0013	1.150	.0313	.0501
#3	1.512	3.190	.5996	3.930	.0229	.0012	1.152	.0301	.0506
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	.0699	.0026	.0080	2.716	-.0004	.0014	.3014		
Stddev	.0002	.0006	.0001	.004	.0016	.0012	.0014		
%RSD	.3268	24.30	1.247	.1617	399.4	88.96	.4610		
#1	.0699	.0022	.0079	2.718	-.0004	.0026	.2999		
#2	.0702	.0022	.0080	2.719	-.0021	.0001	.3016		
#3	.0698	.0033	.0081	2.710	.0012	.0014	.3027		

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Sample Name: jc85075-12 Acquired: 4/3/2019 19:24:24 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	112600.	10532.	4469.5	9726.5
Stddev	134.	57.	2.6	4.2
%RSD	.11872	.53815	.05736	.04300
#1	112480.	10498.	4470.8	9723.6
#2	112590.	10597.	4471.1	9731.3
#3	112740.	10500.	4466.5	9724.6

Sample Name: ccv Acquired: 4/3/2019 19:29:46 Type: QC  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.929	1.924	1.952	1.954	1.960	1.904	1.961	1.957	2.400
Stddev	.001	.002	.002	.003	.001	.003	.002	.001	.0004
%RSD	.0622	.0917	.1287	.0764	.0666	.1384	.0835	.0361	.1736
#1	1.930	1.926	1.952	1.955	1.962	1.905	1.963	1.957	2.404
#2	1.927	1.924	1.954	1.952	1.960	1.901	1.959	1.958	2.396
#3	1.929	1.923	1.949	1.954	1.959	1.905	1.962	1.957	2.400
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.918	1.976	1.956	2.017	1.975	1.936	1.967	38.30	38.94
Stddev	.002	.001	.004	.006	.001	.003	.002	.07	.10
%RSD	.1163	.0630	.2322	.2819	.0360	.1674	.1238	.1946	.2652
#1	1.920	1.977	1.952	2.012	1.976	1.937	1.968	38.39	39.05
#2	1.916	1.975	1.961	2.023	1.975	1.939	1.964	38.27	38.90
#3	1.918	1.976	1.954	2.015	1.976	1.933	1.968	38.25	38.85
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	38.54	38.28	38.18	38.37	1.986	1.982	4.941	2.006	1.919
Stddev	.08	.08	.02	.02	.002	.002	.003	.004	.001
%RSD	.2122	.2007	.0521	.0643	.1099	.0735	.0671	.2023	.0253
#1	38.60	38.37	38.16	38.39	1.983	1.983	4.945	2.007	1.919
#2	38.45	38.26	38.20	38.36	1.988	1.982	4.938	2.010	1.919
#3	38.57	38.22	38.18	38.34	1.986	1.980	4.940	2.002	1.920
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Sample Name: ccv Acquired: 4/3/2019 19:29:46 Type: QC
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 8 columns: Elem, Units, Avg, Stddev, %RSD, and 7 element identifiers (Ti3349, W\_2079, Zr3391, S\_1820, Bi2230, Li6707, P\_1774). Values include ppm, Cts/S, and %RSD.

Check ? High Limit Low Limit

Table with 4 columns: Int. Std. Units, Y\_3600, Y\_3710, Y\_2243, In2306. Values include Cts/S and %RSD.

Check ? High Limit Low Limit

Table with 10 columns: Elem, Units, Avg, Stddev, %RSD, and 8 element identifiers (Fe2599, Mg2790, K\_7664, Na5895, B\_2089, Mo2020, Si2124, Sn1899, Sr4077).

Check ? High Limit Low Limit

Sample Name: ccb Acquired: 4/3/2019 19:34:47 Type: QC
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 12 columns: Elem, Units, Avg, Stddev, %RSD, and 11 element identifiers (Ba4554, Be3130, Cd2288, Co2286, Cr2677, Cu3247, Mn2576, Ni2316, Ag3280).

Check ? High Limit Low Limit

Table with 11 columns: Elem, Units, Avg, Stddev, %RSD, and 10 element identifiers (V\_2924, Zn2062, As1890, Ti1908, Pb2203, Se1960, Sb2068, Al3961, Ca3179).

Check ? High Limit Low Limit

Table with 10 columns: Elem, Units, Avg, Stddev, %RSD, and 9 element identifiers (Fe2599, Mg2790, K\_7664, Na5895, B\_2089, Mo2020, Si2124, Sn1899, Sr4077).

Check ? High Limit Low Limit

7.3 7

Sample Name: ccb Acquired: 4/3/2019 19:34:47 Type: QC
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 8 columns: Elem, Units, Avg, Stddev, %RSD, and 7 element identifiers (Ti3349, W\_2079, Zr3391, S\_1820, Bi2230, Li6707, P\_1774).

Check ? High Limit Low Limit

Table with 4 columns: Int. Std. Units, Y\_3600, Y\_3710, Y\_2243, In2306. Values include Cts/S and %RSD.

Check ? High Limit Low Limit

Table with 10 columns: Elem, Units, Avg, Stddev, %RSD, and 9 element identifiers (Fe2599, Mg2790, K\_7664, Na5895, B\_2089, Mo2020, Si2124, Sn1899, Sr4077).

Check ? High Limit Low Limit

Sample Name: jc85075-13 Acquired: 4/3/2019 19:40:17 Type: Unk
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Table with 12 columns: Elem, Units, Avg, Stddev, %RSD, and 11 element identifiers (Ba4554, Be3130, Cd2288, Co2286, Cr2677, Cu3247, Mn2576, Ni2316, Ag3280).

Check ? High Limit Low Limit

Table with 11 columns: Elem, Units, Avg, Stddev, %RSD, and 10 element identifiers (V\_2924, Zn2062, As1890, Ti1908, Pb2203, Se1960, Sb2068, Al3961, Ca3179).

Check ? High Limit Low Limit

Table with 10 columns: Elem, Units, Avg, Stddev, %RSD, and 9 element identifiers (Fe2599, Mg2790, K\_7664, Na5895, B\_2089, Mo2020, Si2124, Sn1899, Sr4077).

Check ? High Limit Low Limit

Sample Name: jc85075-13 Acquired: 4/3/2019 19:40:17 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	114280.	10699.	4484.7	9867.8
Stddev	280.	59.	8.5	8.6
%RSD	.24539	.54938	.18867	.08692
#1	114420.	10645.	4486.8	9875.3
#2	114470.	10692.	4475.4	9858.4
#3	113960.	10761.	4491.9	9869.7

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Sample Name: jc85075-14 Acquired: 4/3/2019 19:45:41 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0204	.0000	.0002	.0008	.0026	.0483	.0061	.0014	-0.000
Stddev	.0001	.0001	.0001	.0001	.0003	.0004	.0000	.0003	.0003
%RSD	.6591	277.2	39.32	13.66	10.55	.9188	.1879	25.34	658.5
#1	.0204	-0.000	.0001	.0008	.0024	.0488	.0061	.0016	-0.001
#2	.0203	.0000	.0002	.0007	.0029	.0480	.0061	.0015	-0.003
#3	.0206	.0001	.0003	.0009	.0024	.0482	.0061	.0010	.0003
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0003	.1533	.0009	-0.003	.0020	.0015	.0003	.3282	2.812
Stddev	.0001	.0006	.0005	.0001	.0007	.0004	.0007	.0021	.005
%RSD	19.65	.3748	57.02	36.18	36.42	28.24	212.1	.6318	.1785
#1	.0004	.1533	.0011	-0.003	.0025	.0014	.0010	.3306	2.808
#2	.0003	.1527	.0012	-0.002	.0024	.0011	-.0004	.3266	2.810
#3	.0004	.1538	.0003	-0.004	.0012	.0019	.0003	.3275	2.817
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1497	.9064	.4707	2.684	.0095	.0006	.9081	.0250	.0098
Stddev	.0036	.0243	.0204	.006	.0004	.0001	.0030	.0001	.0001
%RSD	2.372	2.680	4.340	.2419	3.995	16.79	.3351	.4014	.6183
#1	.1498	.8819	.4930	2.682	.0091	.0007	.9069	.0249	.0097
#2	.1461	.9069	.4528	2.692	.0095	.0006	.9058	.0251	.0098
#3	.1532	.9305	.4664	2.680	.0099	.0005	.9116	.0251	.0098
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	.0040	.0015	.0009	.7245	.0001	-0.016	.2237		
Stddev	.0002	.0006	.0002	.0024	.0011	.0004	.0016		
%RSD	6.167	42.06	25.50	.3356	1646.	1646.	28.06		
#1	.0042	.0022	.0009	.7232	.0013	-.0015	.2218		
#2	.0040	.0011	.0012	.7229	-.0008	-.0020	.2248		
#3	.0037	.0012	.0007	.7273	-.0002	-.0011	.2244		

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7.3  
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Sample Name: jc85075-14 Acquired: 4/3/2019 19:45:41 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	114300.	10575.	4488.0	9873.6
Stddev	85.	19.	9.9	12.8
%RSD	.07434	.18359	.22148	.12927
#1	114270.	10556.	4484.9	9864.6
#2	114400.	10595.	4499.1	9888.2
#3	114240.	10573.	4479.9	9868.0

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Sample Name: jc85075-15 Acquired: 4/3/2019 19:51:04 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1142	-0.000	.0005	.0006	.0066	.2756	.0213	.0095	.0010
Stddev	.0005	.0001	.0000	.0002	.0003	.0008	.0001	.0001	.0002
%RSD	.4633	184.7	2.859	25.81	5.086	.2904	.3136	1.073	21.13
#1	.1146	-0.001	.0005	.0005	.0068	.2760	.0213	.0094	.0012
#2	.1136	-0.001	.0005	.0008	.0068	.2761	.0214	.0095	.0008
#3	.1144	.0000	.0005	.0006	.0062	.2747	.0212	.0096	.0011
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0011	.3440	.0011	-0.008	.0228	.0019	.0015	2.393	7.944
Stddev	.0003	.0010	.0010	.0001	.0002	.0004	.0005	.013	.013
%RSD	29.34	.2849	96.66	13.80	.9459	20.55	35.77	.5325	.1689
#1	.0014	.3438	.0009	-0.009	.0228	.0023	.0011	2.406	7.960
#2	.0009	.3451	.0001	-0.009	.0231	.0017	.0013	2.380	7.936
#3	.0009	.3431	.0022	-0.007	.0226	.0016	.0021	2.394	7.937
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.793	1.657	6.659	2.889	0.149	0.021	1.056	0.247	0.499
Stddev	.018	.030	.0199	.007	.0004	.0000	.005	.0004	.0002
%RSD	.9971	1.807	2.983	.2341	2.731	2.204	.4683	1.609	.3521
#1	1.813	1.637	.6886	2.892	.0154	.0022	1.062	.0251	.0501
#2	1.780	1.691	.6515	2.881	.0145	.0021	1.054	.0245	.0499
#3	1.786	1.642	.6577	2.893	.0149	.0021	1.053	.0244	.0497
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	.0211	.0024	.0063	1.248	-0.000	.0033	.2855		
Stddev	.0002	.0007	.0000	.002	.0011	.0007	.0015		
%RSD	.9459	28.76	.5951	.1809	4269.	21.12	.5229		
#1	.0209	.0026	.0063	1.250	-0.000	.0028	.2861		
#2	.0212	.0016	.0063	1.246	-0.011	.0031	.2865		
#3	.0212	.0029	.0062	1.247	.0010	.0041	.2838		

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Sample Name: jc85075-15 Acquired: 4/3/2019 19:51:04 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	113280.	10444.	4503.9	9816.7
Stddev	441.	89.	5.0	7.7
%RSD	.38894	.85644	.10997	.07891
#1	112950.	10369.	4498.2	9808.3
#2	113780.	10543.	4506.4	9823.6
#3	113100.	10422.	4507.0	9818.2

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Sample Name: jc85075-16 Acquired: 4/3/2019 19:56:25 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3871	-0.001	.0003	.0007	.0067	.1689	.0158	.0031	-0.000
Stddev	.0007	.0001	.0002	.0001	.0003	.0014	.0000	.0002	.0004
%RSD	.1874	72.15	62.65	12.96	4.559	.8233	.1300	7.199	1165.
#1	.3872	-0.002	.0001	.0007	.0064	.1698	.0158	.0030	-0.002
#2	.3877	-0.001	.0003	.0006	.0069	.1673	.0158	.0034	.0004
#3	.3863	-0.000	.0005	.0007	.0068	.1696	.0157	.0030	-0.003
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0008	.2264	.0012	-0.006	.0211	.0003	.0023	1.517	7.231
Stddev	.0004	.0004	.0012	.0006	.0010	.0005	.0006	.002	.068
%RSD	50.78	.1621	96.52	96.40	4.793	186.4	23.66	.1241	9362
#1	.0013	.2260	.0013	-0.010	.0222	.0006	.0024	1.518	7.309
#2	.0006	.2267	-0.000	.0001	.0207	-0.003	.0029	1.517	7.196
#3	.0005	.2266	.0023	-0.008	.0203	.0005	.0018	1.515	7.188
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7541	1.356	.5499	3.919	.0129	.0072	.9329	.0252	1.964
Stddev	.0075	.028	.0157	.008	.0003	.0000	.0017	.0000	.0004
%RSD	.9991	2.065	2.857	.1977	2.334	.6544	.1812	.0743	2033
#1	.7551	1.383	.5452	3.927	.0128	.0072	.9309	.0252	1.968
#2	.7610	1.357	.5371	3.912	.0132	.0072	.9335	.0252	1.965
#3	.7461	1.327	.5675	3.918	.0126	.0072	.9342	.0252	1.960
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	.0125	.0044	.0060	.8389	-0.009	.0159	.2627		
Stddev	.0001	.0005	.0001	.0053	.0009	.0010	.0027		
%RSD	.4011	10.70	1.092	63.70	98.40	6.483	1.039		
#1	.0125	.0049	.0060	.8346	-0.008	.0150	.2620		
#2	.0125	.0044	.0061	.8449	-0.001	.0170	.2657		
#3	.0126	.0040	.0060	.8372	-0.019	.0156	.2604		

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7.3  
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Sample Name: jc85075-16 Acquired: 4/3/2019 19:56:25 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	113280.	10473.	4495.2	9825.2
Stddev	288.	28.	2.5	11.5
%RSD	.25455	.27008	.05601	.11720
#1	113360.	10440.	4496.1	9832.0
#2	113510.	10490.	4492.3	9811.9
#3	112960.	10488.	4497.1	9831.7

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Sample Name: jc85503-1 Acquired: 4/3/2019 20:01:47 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment: mp13765

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0441	.0010	.0002	.0031	.0736	.0025	.0259	.0120	.0009
Stddev	.0003	.0000	.0001	.0001	.0006	.0003	.0001	.0003	.0003
%RSD	.7165	4.050	49.27	2.583	.7868	10.36	.3189	2.193	34.52
#1	.0444	.0010	.0001	.0031	.0741	.0024	.0258	.0121	.0007
#2	.0439	.0011	.0002	.0031	.0730	.0022	.0260	.0122	.0012
#3	.0439	.0010	.0003	.0030	.0736	.0027	.0259	.0117	.0007
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1075	.0750	.0085	-0.002	.0077	-0.002	.0016	7.733	1.418
Stddev	.0003	.0005	.0006	.0010	.0004	.0011	.0008	.008	.008
%RSD	.2543	.6442	6.931	442.6	4.636	519.9	51.48	.1002	.5660
#1	.1075	.0752	.0084	-0.013	.0078	-0.004	.0024	7.726	1.418
#2	.1073	.0753	.0079	.0006	.0073	-0.012	.0018	7.741	1.425
#3	.1078	.0744	.0091	.0000	.0080	.0009	.0007	7.733	1.409
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	40.40	1.431	13.01	1.552	.0181	.0007	14.83	-0.010	0.148
Stddev	.07	.038	.02	.004	.0004	.0001	.09	.0001	.0001
%RSD	.1836	2.682	.1730	.2746	2.083	11.24	.5868	6.878	.9066
#1	40.45	1.470	13.00	1.550	.0177	.0006	14.81	-0.010	0.149
#2	40.43	1.430	13.04	1.557	.0183	.0007	14.92	-0.010	0.149
#3	40.31	1.394	12.99	1.550	.0183	.0008	14.75	-0.011	0.147
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	.2521	.0145	.0034	3.605	-0.010	.0052	.7677		
Stddev	.0014	.0010	.0001	.015	.0005	.0009	.0028		
%RSD	.5404	7.037	3.957	.4183	50.08	17.94	.3640		
#1	.2510	.0145	.0033	3.595	-0.005	.0045	.7683		
#2	.2516	.0155	.0033	3.622	-0.015	.0048	.7701		
#3	.2536	.0135	.0035	3.598	-0.009	.0062	.7646		

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Sample Name: jc85503-1 Acquired: 4/3/2019 20:01:47 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment: mp13765

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	113260.	10562.	4522.8	9688.7
Stddev	121.	89.	25.6	46.8
%RSD	.10669	.84556	.56621	.48290
#1	113190.	10497.	4519.3	9682.1
#2	113200.	10526.	4499.0	9645.5
#3	113400.	10664.	4549.9	9738.4

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Sample Name: jc85503-2 Acquired: 4/3/2019 20:07:05 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0996	.0008	.0004	.0055	.0407	.0015	.0360	.0142	.0000
Stddev	.0006	.0001	.0000	.0002	.0006	.0001	.0001	.0001	.0005
%RSD	.6305	9.078	4.920	3.122	1.491	9.277	.3674	1.024	7204.
#1	.0994	.0007	.0005	.0057	.0414	.0014	.0359	.0141	-.0006
#2	.0991	.0008	.0004	.0054	.0402	.0015	.0360	.0142	.0004
#3	.1003	.0007	.0004	.0055	.0405	.0017	.0362	.0144	.0002
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0593	.0827	.0047	.0003	.0046	-.0008	.0008	4.516	4.508
Stddev	.0001	.0002	.0007	.0011	.0005	.0003	.0006	.023	.006
%RSD	.2315	.2586	15.10	342.1	11.36	31.14	70.09	.5104	.1345
#1	.0594	.0826	.0042	.0015	.0041	-.0011	.0006	4.489	4.509
#2	.0592	.0825	.0055	.0001	.0052	-.0009	.0015	4.524	4.502
#3	.0594	.0829	.0044	-.0007	.0046	-.0006	.0004	4.533	4.514
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	21.82	4.757	5.425	10.80	0.286	.0006	12.65	-.0012	0.0425
Stddev	.05	.013	.010	.03	.0002	.0001	.01	.0004	.0002
%RSD	.2323	.2622	.1855	.2606	.6099	24.36	.1162	33.18	.5087
#1	21.79	4.763	5.432	10.80	.0285	.0005	12.66	-.0015	.0426
#2	21.78	4.743	5.430	10.78	.0284	.0007	12.65	-.0007	.0423
#3	21.88	4.766	5.414	10.83	.0288	.0005	12.64	-.0013	.0427
Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	.1404	.0128	.0020	1.399	-.0010	.0055	.4344		
Stddev	.0005	.0010	.0001	.002	.0011	.0018	.0009		
%RSD	.3388	7.832	5.959	.1487	110.3	32.17	.2151		
#1	.1399	.0136	.0018	1.398	-.0018	.0070	.4335		
#2	.1409	.0131	.0020	1.401	-.0015	.0035	.4354		
#3	.1405	.0117	.0020	1.397	.0003	.0059	.4344		

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7.3  
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Sample Name: jc85503-2 Acquired: 4/3/2019 20:07:05 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	112200.	10468.	4532.5	9627.5
Stddev	245.	37.	4.1	8.1
%RSD	.21851	.35222	.09127	.08426
#1	112350.	10439.	4527.8	9619.9
#2	112330.	10509.	4533.9	9636.0
#3	111910.	10455.	4535.7	9626.6

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Sample Name: jc85503-3 Acquired: 4/3/2019 20:12:24 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0992	.0009	.0005	.0102	.0511	.0034	.1265	.0183	.0001
Stddev	.0002	.0000	.0002	.0002	.0004	.0001	.0004	.0002	.0004
%RSD	.1589	4.258	40.00	2.094	8.543	3.770	.2849	.9700	292.3
#1	.0991	.0009	.0005	.0100	.0510	.0032	.1269	.0182	-.0002
#2	.0991	.0009	.0006	.0102	.0507	.0035	.1263	.0185	.0005
#3	.0994	.0009	.0003	.0104	.0515	.0034	.1264	.0183	.0001
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0708	.0864	.0056	-.0007	.0074	-.0016	.0009	6.253	14.93
Stddev	.0005	.0002	.0009	.0011	.0010	.0011	.0014	.020	.04
%RSD	.6414	.1845	16.40	157.5	14.21	67.39	159.0	.3165	.2604
#1	.0710	.0864	.0046	-.0002	.0084	-.0013	.0024	6.262	14.90
#2	.0703	.0862	.0057	.0001	.0063	-.0008	-.0001	6.267	14.98
#3	.0711	.0865	.0065	-.0020	.0074	-.0029	.0003	6.231	14.92
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	25.56	3.885	5.511	55.65	0.236	.0007	14.71	-.0012	1.239
Stddev	.04	.006	.018	.07	.0005	.0003	.03	.0003	.0005
%RSD	.1469	.1657	.3207	.1306	2.015	46.04	.1954	22.13	.4381
#1	25.58	3.892	5.521	55.58	.0241	.0008	14.69	-.0013	1.233
#2	25.59	3.880	5.522	55.72	.0232	.0009	14.70	-.0009	1.244
#3	25.52	3.883	5.491	55.64	.0235	.0003	14.75	-.0015	1.240
Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	.1678	.0149	.0021	6.306	-.0007	.0042	4.986		
Stddev	.0008	.0003	.0002	.0018	.0011	.0002	.0028		
%RSD	.4566	1.685	11.16	.2846	169.8	3.828	.5667		
#1	.1678	.0152	.0020	6.286	-.0005	.0043	4.953		
#2	.1685	.0148	.0019	6.317	-.0018	.0040	4.998		
#3	.1670	.0147	.0024	6.316	-.0008	.0042	5.005		

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Zoom In  
Zoom Out

Sample Name: jc85503-3 Acquired: 4/3/2019 20:12:24 Type: Unk  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	109790.	10413.	4441.7	9233.6
Stddev	351.	50.	2.6	6.2
%RSD	.32015	.47861	.05843	.06669
#1	109430.	10376.	4438.7	9229.0
#2	109800.	10393.	4443.4	9231.2
#3	110130.	10469.	4443.1	9240.6

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Zoom In  
Zoom Out

Sample Name: jc85503-4 Acquired: 4/3/2019 20:17:44 Type: Unk  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1320	.0006	.0017	.0228	.0235	.0019	.0502	.0459	.0003
Stddev	.0002	.0000	.0002	.0003	.0003	.0005	.0001	.0002	.0002
%RSD	.1390	5.862	11.67	1.465	1.396	24.92	.1834	.3963	73.75
#1	.1321	.0006	.0016	.0226	.0236	.0017	.0502	.0461	.0003
#2	.1318	.0006	.0019	.0232	.0231	.0025	.0503	.0457	.0005
#3	.1322	.0006	.0015	.0227	.0238	.0017	.0501	.0458	.0001
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0320	.1773	.0026	.0000	.0032	-0.0002	-0.0006	2.394	12.69
Stddev	.0004	.0001	.0006	.0016	.0006	.0003	.0004	.016	.02
%RSD	1.337	.0411	24.42	29150.	18.88	207.2	78.62	.6466	.1523
#1	.0323	.1773	.0030	.0010	.0027	.0002	-.0005	2.384	12.67
#2	.0322	.1772	.0028	-.0018	.0031	-.0005	-.0001	2.412	12.71
#3	.0315	.1773	.0018	.0009	.0039	-.0002	-.0010	2.386	12.69
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.81	10.55	5.036	15.06	0.136	.0005	9.583	-0.0008	0.922
Stddev	.01	.10	.052	.04	.0003	.0002	.023	.0004	.0002
%RSD	.0565	.9276	1.036	.2325	2.539	31.69	.2387	49.54	.1631
#1	10.81	10.48	5.022	15.03	.0135	.0003	9.587	-.0012	.0922
#2	10.82	10.66	5.094	15.10	.0133	.0006	9.604	-.0006	.0923
#3	10.81	10.51	4.993	15.05	.0140	.0006	9.559	-.0005	.0920
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	.0775	.0096	.0012	.3119	-0.0014	.0054	.2068		
Stddev	.0008	.0004	.0002	.0013	.0010	.0006	.0012		
%RSD	1.041	4.470	19.57	4.291	73.40	11.37	.5877		
#1	.0776	.0101	.0014	.3114	-.0015	.0050	.2076		
#2	.0766	.0095	.0010	.3134	-.0024	.0051	.2073		
#3	.0782	.0093	.0014	.3109	-.0003	.0061	.2054		

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7.3  
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Zoom In  
Zoom Out

Sample Name: jc85503-4 Acquired: 4/3/2019 20:17:44 Type: Unk  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	112010.	10524.	4491.4	9518.1
Stddev	184.	41.	7.1	12.6
%RSD	.16393	.38816	.15769	.13216
#1	111980.	10569.	4490.1	9510.0
#2	111850.	10489.	4485.1	9511.7
#3	112210.	10513.	4499.0	9532.6

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Zoom In  
Zoom Out

Sample Name: jc85513-1 Acquired: 4/3/2019 20:23:05 Type: Unk  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0717	-0.0001	-0.0001	-0.0001	.0004	.0001	.0017	.0003	.0001
Stddev	.0003	.0001	.0003	.0002	.0003	.0001	.0001	.0003	.0004
%RSD	4.453	97.71	219.7	293.8	72.77	185.2	6.126	90.23	451.3
#1	.0718	-.0002	-.0003	-.0002	.0001	.0002	.0016	.0005	-.0001
#2	.0720	.0000	.0002	.0001	.0005	.0001	.0018	-.0000	-.0001
#3	.0714	-.0002	-.0002	-.0001	.0006	-.0001	.0017	.0005	.0005
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0004	.0002	-0.0009	-0.0005	.0002	.0004	-0.0006	.0048	20.56
Stddev	.0002	.0002	.0002	.0008	.0005	.0006	.0005	.0072	.04
%RSD	44.71	84.86	25.71	163.4	233.1	134.9	77.58	150.9	.1941
#1	.0004	.0002	-.0010	-.0012	.0008	.0009	-.0008	.0023	20.61
#2	.0002	.0000	-.0006	-.0004	-.0001	-.0002	-.0010	-.0009	20.55
#3	.0005	.0004	-.0010	-.0007	-.0000	.0006	-.0001	.0129	20.53
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	0.172	4.507	2.328	37.12	0.495	.0003	4.206	-0.0012	0.852
Stddev	.0035	.027	.009	.10	.0006	.0001	.070	.0004	.0003
%RSD	20.14	.6004	.4070	.2728	1.252	45.61	1.653	35.01	.3363
#1	.0151	4.480	2.337	37.23	.0492	.0002	4.195	-.0008	.0849
#2	.0154	4.534	2.328	37.09	.0491	.0002	4.143	-.0016	.0854
#3	.0212	4.508	2.318	37.03	.0502	.0004	4.280	-.0012	.0854
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	-0.0006	.0091	-0.0001	3.561	-0.0012	-0.0012	.0044		
Stddev	.0002	.0009	.0001	.062	.0002	.0005	.0008		
%RSD	30.79	10.42	56.68	1.738	17.98	37.18	17.83		
#1	-.0008	.0086	-.0002	3.551	-.0015	-.0013	.0045		
#2	-.0004	.0085	-.0001	3.505	-.0010	-.0007	.0036		
#3	-.0006	.0102	-.0001	3.627	-.0012	-.0016	.0051		

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Sample Name: jc85513-1 Acquired: 4/3/2019 20:23:05 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	109740.	10352.	4434.9	9414.1
Stddev	90.	114.	61.0	126.8
%RSD	.08172	1.1047	1.3751	1.3467
#1	109750.	10220.	4438.2	9410.8
#2	109650.	10425.	4494.2	9542.5
#3	109830.	10410.	4372.4	9289.0

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Sample Name: ccv Acquired: 4/3/2019 20:28:30 Type: QC  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.955	1.940	1.973	1.952	1.957	1.916	1.976	1.976	2.399
Stddev	.002	.002	.004	.004	.003	.002	.002	.004	.0006
%RSD	.1084	.0985	.2170	.2210	.1437	.0807	.0761	.2264	.2628
#1	1.955	1.942	1.971	1.951	1.956	1.918	1.974	1.973	2.394
#2	1.957	1.939	1.978	1.957	1.961	1.915	1.977	1.981	2.397
#3	1.953	1.938	1.970	1.949	1.955	1.915	1.977	1.974	2.406

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
 Value Range

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.939	1.982	1.964	2.029	1.981	1.955	1.975	38.62	38.99
Stddev	.002	.005	.002	.008	.004	.004	.003	.09	.08
%RSD	.1164	.2557	.0828	.3766	.1746	.1918	.1671	.2221	.2028
#1	1.936	1.980	1.965	2.023	1.979	1.955	1.973	38.52	38.94
#2	1.940	1.988	1.962	2.027	1.985	1.959	1.979	38.69	39.08
#3	1.940	1.978	1.965	2.037	1.980	1.952	1.974	38.64	38.94

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
 Value Range

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	38.92	38.45	38.46	38.60	1.988	1.992	4.955	2.009	1.950
Stddev	.09	.17	.04	.11	.004	.004	.009	.002	.002
%RSD	.2200	.4452	.1027	.2889	.2242	.1804	.1834	.0881	.0976
#1	38.92	38.25	38.50	38.59	1.985	1.990	4.960	2.009	1.949
#2	39.01	38.54	38.42	38.71	1.993	1.996	4.960	2.010	1.952
#3	38.83	38.55	38.46	38.49	1.985	1.989	4.944	2.007	1.950

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
 Value Range

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7.3  
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Sample Name: ccv Acquired: 4/3/2019 20:28:30 Type: QC  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.957	1.961	1.956	1.953	1.959	1.918	1.981
Stddev	.001	.005	.002	.009	.001	.004	.004
%RSD	.0596	.2720	.0930	.4703	.0451	.2296	.2010
#1	1.956	1.962	1.955	1.960	1.959	1.915	1.981
#2	1.958	1.966	1.955	1.943	1.960	1.923	1.978
#3	1.958	1.955	1.958	1.956	1.958	1.915	1.986

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
 Value Range

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	107580.	10365.	4384.4	8926.7
Stddev	160.	26.	9.6	14.4
%RSD	.14863	.25311	.21991	.16125
#1	107720.	10365.	4387.6	8930.4
#2	107400.	10339.	4373.6	8910.8
#3	107610.	10391.	4392.0	8938.9

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Sample Name: ccb Acquired: 4/3/2019 20:33:32 Type: QC  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000	.0001	.0003	.0003	-0.001	.0001	.0001	.0001	.0004
Stddev	.0002	.0001	.0003	.0002	.0003	.0002	.0001	.0002	.0003
%RSD	567.8	48.94	116.2	69.00	376.3	187.6	49.20	163.1	86.73
#1	-0.001	.0001	.0006	.0003	-0.003	-0.001	.0001	.0001	.0002
#2	-0.000	.0002	.0001	.0005	-0.002	.0002	.0001	.0003	.0007
#3	.0002	.0001	.0001	.0001	.0002	.0002	.0002	-0.001	.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	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002	-0.001	.0001	.0014	-0.002	.0004	-0.002	-0.019	-0.030
Stddev	.0002	.0001	.0007	.0010	.0003	.0012	.0003	.0091	.0033
%RSD	78.29	122.6	640.0	71.66	209.1	273.3	149.1	480.3	112.6
#1	.0001	-0.000	-0.003	.0019	-0.005	.0015	.0001	-0.016	.0008
#2	.0001	-0.001	-0.003	.0020	-0.001	-0.009	-0.004	-0.006	-0.043
#3	.0004	-0.002	.0009	.0002	-0.000	.0008	-0.003	.0065	-0.055

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
 High Limit Low Limit

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0020	-0.005	.0169	.0104	.0004	.0003	.0011	.0001	-0.000
Stddev	.0036	.0219	.0327	.0057	.0005	.0003	.0007	.0002	.0001
%RSD	173.9	257.3	193.5	54.57	153.8	93.99	67.47	202.8	1725.
#1	.0047	.0139	.0534	.0040	.0009	.0006	.0016	.0003	-0.000
#2	.0035	-0.299	.0071	.0147	.0003	.0004	.0015	-0.001	.0001
#3	-0.0020	-0.095	-0.098	.0126	-0.001	-0.000	.0002	.0001	-0.000

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
 High Limit Low Limit

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Sample Name: ccb Acquired: 4/3/2019 20:33:32 Type: QC  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000	.0012	.0004	-0.0015	-0.0000	.0026	-0.0111
Stddev	.0002	.0014	.0002	.0008	.0015	.0009	.0002
%RSD	629.2	111.5	46.80	52.52	371.7	35.14	14.23

#1	-0.002	.0014	.0003	-0.007	.0013	.0020	-0.011
#2	.0001	.0024	.0003	-0.017	-0.017	.0036	-0.009
#3	.0003	-0.002	.0006	-0.022	.0003	.0021	-0.012

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
 High Limit  
 Low Limit

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	112880.	10299.	4543.4	9972.6
Stddev	407.	64.	4.0	12.7
%RSD	.36056	.61696	.08799	.12689

#1	112650.	10227.	4545.6	9981.6
#2	112650.	10321.	4545.7	9978.0
#3	113350.	10348.	4538.7	9958.1

Sample Name: vconf Acquired: 4/3/2019 20:39:02 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0005	.0005	-0.006	.0003	-0.0002	.0002	-0.001	.0002	.0003
Stddev	.0002	.0000	.0001	.0002	.0004	.0001	.0000	.0001	.0003
%RSD	41.90	7.738	21.91	66.54	274.5	52.67	30.84	43.42	116.3

#1	.0005	.0005	-0.006	.0002	-0.0003	.0001	-0.001	.0003	.0001
#2	.0008	.0005	-0.005	.0001	-0.0005	.0001	-0.002	.0001	.0007
#3	.0003	.0006	-0.007	.0005	.0003	.0003	-0.001	.0003	.0001

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 10.78	.0003	.0004	-0.016	-0.0007	-0.0003	.0013	.0084	.0083
Stddev	.01	.0001	.0001	.0015	.0002	.0006	.0006	.0023	.0022
%RSD	.0504	26.58	26.62	96.32	30.84	190.0	47.44	27.76	25.96

#1	10.78	.0002	.0004	-0.003	-0.0006	-0.0003	.0010	.0058	.0081
#2	10.78	.0003	.0003	-0.012	-0.0009	.0003	.0019	.0104	.0063
#3	10.77	.0004	.0006	-0.032	-0.0005	-0.0008	.0008	.0089	.0106

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0057	-0.0090	-0.022	.0635	.0246	.0006	.4835	-0.007	-0.002
Stddev	.0038	.0389	.0131	.0016	.0010	.0002	.0042	.0002	.0001
%RSD	66.68	432.4	592.3	2.584	4.093	39.39	8.741	24.54	46.75

#1	.0077	.0046	.0074	.0652	.0240	.0005	.4815	-0.006	-0.002
#2	.0013	.0213	-0.171	.0619	.0241	.0005	.4806	-0.009	-0.001
#3	.0081	-0.0529	.0031	.0632	.0258	.0009	.4884	-0.007	-0.002

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002	.0032	-0.006	-0.033	-0.0008	.0005	-0.0066
Stddev	.0004	.0002	.0002	.0013	.0006	.0003	.0004
%RSD	152.5	5.897	25.45	37.64	77.40	53.25	5.810

#1	.0001	.0030	-0.005	-0.037	-0.0003	.0005	-0.0065
#2	.0007	.0033	-0.007	-0.019	-0.0006	.0002	-0.0070
#3	-0.0000	.0032	-0.008	-0.044	-0.0015	.0008	-0.0063

7.3  
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Sample Name: vconf Acquired: 4/3/2019 20:39:02 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	112580.	10375.	4536.0	9925.0
Stddev	198.	74.	3.6	13.1
%RSD	.17604	.71471	.07842	.13163

#1	112360.	10429.	4537.2	9930.8
#2	112610.	10291.	4532.0	9910.0
#3	112760.	10406.	4538.8	9934.1

Sample Name: moconf Acquired: 4/3/2019 20:44:30 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0002	-0.0002	.0002	.0020	-0.0017	-0.0002	-0.0006	-0.0003	.0015
Stddev	.0001	.0001	.0002	.0002	.0002	.0003	.0001	.0002	.0002
%RSD	60.23	42.10	71.99	9.711	10.50	186.7	10.78	70.63	14.92

#1	-0.0002	-0.0001	.0003	.0019	-0.0016	-0.0005	-0.0006	-0.0001	.0014
#2	-0.0001	-0.0003	.0003	.0018	-0.0019	-0.0000	-0.0006	-0.0004	.0014
#3	-0.0003	-0.0002	.0000	.0022	-0.0016	-0.0000	-0.0005	-0.0005	.0018

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0081	-0.014	-0.013	-0.019	.0007	-0.0022	.0057	.0226	-0.0048
Stddev	.0015	.0001	.0016	.0009	.0006	.0011	.0002	.0054	.0017
%RSD	18.47	4.820	122.2	46.25	88.72	50.26	3.703	24.05	34.44

#1	.0098	-0.014	.0005	-0.014	.0006	-0.0035	.0059	.0263	-0.052
#2	.0076	-0.013	-0.018	-0.013	.0002	-0.0016	.0058	.0251	-0.030
#3	.0070	-0.014	-0.027	-0.029	.0014	-0.0015	.0055	.0164	-0.063

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0029	.0678	-0.130	.0124	.0271	F 10.23	.0092	-0.0005	-0.0002
Stddev	.0016	.0475	.0251	.0039	.0005	.01	.0012	.0007	.0001
%RSD	54.39	69.95	192.7	31.44	1.956	.1047	12.73	135.3	32.53

#1	-0.0038	.1121	.0075	.0144	.0276	10.24	.0093	.0002	-0.0001
#2	-0.0011	.0177	-0.055	.0079	.0271	10.22	.0103	-0.0013	-0.0002
#3	-0.0038	.0737	-0.041	.0149	.0266	10.22	.0080	-0.0005	-0.0003

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0007	.0051	.0051	-0.029	.0003	-0.0005	-0.0008
Stddev	.0005	.0003	.0002	.0014	.0009	.0014	.0019
%RSD	66.05	5.612	3.372	48.23	323.5	287.7	236.4

#1	.0005	.0052	.0049	-0.020	.0010	-0.0006	.0013
#2	.0004	.0053	.0052	-0.045	.0005	.0010	-0.0014
#3	.0013	.0048	.0052	-0.022	-0.0007	-0.0019	-0.0022

Sample Name: moconf Acquired: 4/3/2019 20:44:30 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	113780.	10384.	4537.1	9999.9
Stddev	314.	186.	3.2	11.6
%RSD	.27628	1.7889	.06983	.11571
#1	114150.	10313.	4533.9	9987.7
#2	113590.	10244.	4540.2	10011.
#3	113610.	10595.	4537.2	10001.

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Sample Name: siconf Acquired: 4/3/2019 20:49:54 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000	-0.0011	.0003	-0.0033	.0007	-0.0003	-0.0004	.0003	.0002
Stddev	.0003	.0000	.0002	.0001	.0002	.0006	.0000	.0001	.0003
%RSD	9575.	2.913	67.01	20.68	29.12	166.5	11.37	47.62	142.0
#1	.0003	-0.0011	.0001	-0.004	.0006	.0001	-0.0005	.0003	-0.0011
#2	-0.0011	-0.0011	.0004	-0.0033	.0006	-0.0010	-0.0004	.0002	.0004
#3	-0.002	-0.0011	.0003	-0.0033	.0010	-0.0011	-0.0004	.0004	.0002
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001	-0.0006	.0001	-0.002	.0005	-0.0008	-0.0006	-0.0029	-0.0015
Stddev	.0002	.0002	.0007	.0007	.0011	.0011	.0012	.0050	.0031
%RSD	245.3	26.66	552.0	404.7	214.6	132.1	208.8	173.3	202.2
#1	.0003	-0.0008	-0.0033	-0.005	-0.008	-0.007	-0.0005	-0.061	-0.010
#2	.0002	-0.0005	.0010	-0.006	.0010	.0002	-0.0018	-0.0055	.0013
#3	-0.002	-0.0006	-0.0033	.0006	.0013	-0.0020	.0006	.0029	-0.049
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0024	-0.0120	.0050	-0.0065	.0033	.0014	10.25	-0.0012	-0.0001
Stddev	.0031	.0213	.0248	.0080	.0003	.0002	.03	.0001	.0001
%RSD	126.3	177.9	492.1	123.5	8.217	13.18	.2807	7.634	99.59
#1	-0.009	-0.162	-0.193	-0.093	.0030	.0015	10.28	-0.013	-0.002
#2	.0052	-0.0308	.0302	.0025	.0034	.0012	10.22	-0.012	.0000
#3	.0029	.0111	.0042	-0.127	.0035	.0015	10.25	-0.011	-0.002
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	-0.004	.0111	.0005	-0.018	-0.013	-0.016	-0.009		
Stddev	.0002	.0006	.0000	.0012	.0013	.0005	.0002		
%RSD	58.43	5.605	7.943	64.49	102.5	29.49	24.68		
#1	-0.007	.0104	.0005	-0.017	-0.025	-0.014	-0.011		
#2	-0.002	.0113	.0006	-0.007	.0001	-0.012	-0.007		
#3	-0.004	.0116	.0005	-0.031	-0.015	-0.021	-0.011		

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7.3  
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Sample Name: siconf Acquired: 4/3/2019 20:49:54 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	113520.	10309.	4569.3	9998.9
Stddev	438.	40.	8.0	13.1
%RSD	.38586	.39165	.17506	.13107
#1	113040.	10271.	4561.0	9983.8
#2	113630.	10303.	4576.9	10005.
#3	113890.	10351.	4570.1	10007.

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Sample Name: ticonf Acquired: 4/3/2019 20:55:22 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.002	.0000	.0001	-0.0033	-0.000	.0027	-0.000	.0001
Stddev	.0002	.0000	.0000	.0002	.0001	.0001	.0001	.0001
%RSD	99.53	23.13	46.22	65.54	401.5	4.366	335.2	117.5
#1	-0.004	.0000	.0001	-0.0033	.0001	.0026	-0.000	-0.000
#2	-0.000	.0000	.0001	-0.001	-0.000	.0028	-0.001	.0002
#3	-0.002	.0000	.0001	-0.004	-0.002	.0027	.0000	.0001
Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0023	.0004	-0.001	-0.000	F -0.022	-0.000	-0.002	-0.002
Stddev	.0002	.0003	.0001	.0003	.0012	.0003	.0009	.0006
%RSD	10.56	74.53	61.30	9026.	55.11	11670.	391.5	321.0
#1	.0026	.0002	-0.001	-0.001	-0.020	-0.000	-0.008	-0.007
#2	.0023	.0008	-0.000	.0003	-0.035	-0.002	.0008	.0005
#3	.0021	.0003	-0.002	-0.002	-0.011	.0003	-0.008	-0.004
Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0024	.0023	.0008	-0.0415	-0.0247	-0.057	-0.005	.000
Stddev	.0094	.0014	.0022	.0264	.0174	.0062	.0004	.0001
%RSD	383.1	61.84	282.2	63.65	70.45	108.6	72.68	339.2
#1	-0.073	.0038	.0028	-0.235	-0.322	-0.005	-0.002	.0002
#2	.0114	.0020	.0009	-0.292	-0.371	-0.041	-0.009	-0.001
#3	.0032	.0011	-0.015	-0.719	-0.048	-0.016	-0.005	.000
Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0260	.0005	-0.001	F 9.340	-0.004	.0000	-0.041	-0.066
Stddev	.0004	.0007	.0000	.026	.0002	.0002	.0008	.0007
%RSD	1.360	143.0	58.48	.2768	53.00	770.0	20.78	10.01
#1	.0257	.0002	-0.000	9.369	-0.005	.0000	-0.050	-0.059
#2	.0258	.0013	-0.001	9.323	-0.001	-0.002	-0.040	-0.070
#3	.0264	-0.000	-0.001	9.326	-0.005	.0003	-0.033	-0.070

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Zoom In  
Zoom Out

Sample Name: ticonf Acquired: 4/3/2019 20:55:22 Type: Unk  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Elem	Li6707	P_1774		
Units	ppm	ppm		
Avg	-0.0006	-0.0022		
Stddev	.0015	.0001		
%RSD	251.2	4.697		
#1	-0.0008	-0.0022		
#2	.0010	-0.0023		
#3	-0.0020	-0.0021		
Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	113350.	10320.	4554.4	9977.9
Stddev	472.	6.	1.9	9.8
%RSD	.41644	.06285	.04179	.09828
#1	113210.	10313.	4556.6	9976.9
#2	113880.	10326.	4553.4	9988.2
#3	112970.	10322.	4553.2	9968.6

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Zoom In  
Zoom Out

Sample Name: snconf Acquired: 4/3/2019 21:00:51 Type: Unk  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000	.0000	.0000	-.0001	-.0002	.0007	-0.0000	-0.0008	.0013
Stddev	.0002	.0001	.0001	.0003	.0002	.0004	.0000	.0001	.0005
%RSD	680.4	280.7	1040.	285.4	149.0	51.59	77.62	12.64	38.33
#1	.0002	.0001	-.0001	.0002	-.0002	.0007	-0.0000	-0.0007	.0019
#2	-.0001	.0002	.0001	-.0004	-.0003	.0011	-0.0000	-0.0009	.0009
#3	-.0000	-.0001	.0000	-.0001	.0001	.0003	-.0001	-0.0007	.0011
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0001	-.0008	.0013	.0007	-.0000	.0005	.0002	.0018	.0044
Stddev	.0003	.0001	.0009	.0007	.0007	.0005	.0008	.0020	.0028
%RSD	281.7	16.43	66.23	110.7	1580.	90.12	441.3	112.3	62.20
#1	-.0000	-.0006	.0011	-.0002	-.0008	.0002	.0004	-.0000	.0013
#2	-.0004	-.0008	.0005	.0010	.0001	.0003	-.0007	.0039	.0053
#3	.0001	-.0009	.0022	.0011	.0006	.0011	.0008	.0014	.0066
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sr1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0026	-.0073	-.0034	-.0103	-.0008	.0001	.0947	F 10.16	-.0001
Stddev	.0013	.0213	.0168	.0072	.0006	.0001	.0003	.01	.0001
%RSD	50.92	290.1	500.2	69.48	66.28	160.2	.3580	.1254	81.81
#1	.0023	.0074	-.0221	-.0027	-.0012	-.0000	.0944	10.16	-.0002
#2	.0015	.0023	.0015	-.0169	-.0002	.0000	.0947	10.15	-.0002
#3	.0040	-.0317	.0105	-.0115	-.0011	.0002	.0951	10.17	-.0000
Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	-.0000	.0001	.0046	-.0008	-.0006	-.0007	-.0021		
Stddev	.0002	.0001	.0002	.0020	.0003	.0007	.0009		
%RSD	1006.	119.0	3.456	254.4	56.12	103.9	43.50		
#1	.0002	.0002	.0048	-.0002	-.0009	.0001	-.0028		
#2	-.0002	.0001	.0046	.0009	-.0003	-.0010	-.0025		
#3	.0000	-.0000	.0045	-.0031	-.0004	-.0013	-.0011		

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7.3  
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Zoom In  
Zoom Out

Sample Name: snconf Acquired: 4/3/2019 21:00:51 Type: Unk  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	112400.	10364.	4548.8	9983.0
Stddev	109.	60.	4.2	4.5
%RSD	.09720	.58226	.09200	.04528
#1	112530.	10332.	4550.4	9981.6
#2	112330.	10326.	4544.1	9979.4
#3	112350.	10433.	4552.0	9988.1

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Zoom In  
Zoom Out

Sample Name: mnconf Acquired: 4/3/2019 21:06:19 Type: Unk  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001	.0001	.0001	.0000	-.0002	.0007	F 10.10	-.0001	-.0012
Stddev	.0002	.0001	.0002	.0002	.0004	.0002	.01	.0001	.0003
%RSD	191.6	56.65	143.2	1347.	225.6	25.81	.1202	69.55	28.94
#1	-.0001	.0001	.0003	.0000	.0001	.0010	10.10	-.0001	-.0010
#2	.0000	.0001	-.0001	.0002	-.0007	.0007	10.09	-.0001	-.0010
#3	.0004	.0002	.0001	-.0002	.0000	.0006	10.12	-.0002	-.0016
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0032	.0000	-.0014	-.0015	-.0011	.0005	.0002	.0046	.0006
Stddev	.0002	.0001	.0004	.0006	.0007	.0007	.0004	.0125	.0028
%RSD	6.513	536.9	29.96	43.13	57.96	147.9	249.1	270.6	466.5
#1	-.0031	.0001	-.0009	-.0020	-.0012	.0004	.0001	-.0065	.0020
#2	-.0034	-.0001	-.0017	-.0008	-.0018	.0012	-.0002	.0182	-.0026
#3	-.0031	.0001	-.0015	-.0017	-.0005	-.0002	.0007	.0022	.0024
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sr1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0118	-.0292	-.0392	-.0168	-.0005	-.0002	.0015	-.0017	-.0001
Stddev	.0057	.0316	.0042	.0057	.0004	.0002	.0005	.0003	.0001
%RSD	48.19	108.0	10.80	34.11	69.43	124.2	31.10	19.56	103.6
#1	.0177	-.0062	-.0431	-.0218	-.0005	.0001	.0020	-.0019	-.0000
#2	.0063	-.0163	-.0347	-.0105	-.0009	-.0004	.0015	-.0018	-.0000
#3	.0116	-.0652	-.0399	-.0180	-.0002	-.0002	.0010	-.0013	-.0001
Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	.0000	.0014	-.0001	.0070	.0000	.0002	.0193		
Stddev	.0004	.0004	.0001	.0012	.0016	.0003	.0008		
%RSD	765.5	26.25	113.5	16.60	7572.	159.1	3.981		
#1	-.0004	.0017	.0000	.0076	-.0000	.0003	.0197		
#2	.0003	.0013	-.0001	.0056	-.0015	-.0002	.0197		
#3	.0003	.0010	-.0002	.0077	.0016	.0005	.0184		

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Sample Name: mnconf Acquired: 4/3/2019 21:06:19 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	112470.	10382.	4520.0	9891.5
Stddev	103.	6.	10.9	29.5
%RSD	.09147	.06039	.24207	.29837
#1	112500.	10375.	4529.9	9918.1
#2	112360.	10387.	4521.9	9896.6
#3	112560.	10385.	4508.3	9859.7

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Sample Name: sconf Acquired: 4/3/2019 21:11:56 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.0000</b>	<b>-0.0000</b>	<b>.0002</b>	<b>-0.0002</b>	<b>.0007</b>	<b>.0156</b>	<b>.0004</b>	<b>-0.0000</b>	<b>.0007</b>
Stddev	.0002	.0001	.0001	.0001	.0004	.0002	.0000	.0001	.0001
%RSD	588.9	342.2	54.79	61.35	52.67	.9725	7.001	917.7	9.869
#1	-0.0002	-0.0002	.0001	-0.0001	.0009	.0157	.0004	-0.0000	.0006
#2	.0001	-0.0000	.0002	-0.0003	.0010	.0157	.0004	-0.0001	.0007
#3	.0002	.0001	.0004	-0.0002	.0003	.0155	.0004	.0001	.0007
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.0001</b>	<b>-0.0003</b>	<b>-0.0005</b>	<b>-0.0015</b>	<b>-0.0005</b>	<b>.0002</b>	<b>-0.0009</b>	<b>-0.0001</b>	<b>-0.0008</b>
Stddev	.0001	.0001	.0003	.0007	.0006	.0007	.0012	.0081	.0009
%RSD	166.9	40.52	50.53	46.65	112.6	406.2	124.2	1116.0	109.4
#1	-0.0000	-0.0004	-0.0004	-0.0022	.0002	.0005	.0001	.0034	-0.0013
#2	.0002	-0.0002	-0.0008	-0.0009	.0011	-0.0006	-0.0008	.0057	.0002
#3	.0000	-0.0003	-0.0003	-0.0014	.0002	.0006	-0.0022	-0.0093	-0.0013
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.0297</b>	<b>-0.0049</b>	<b>-0.0224</b>	<b>-0.0129</b>	<b>-0.0007</b>	<b>.0002</b>	<b>.0057</b>	<b>-0.0006</b>	<b>-0.0001</b>
Stddev	.0021	.0100	.0244	.0193	.0005	.0001	.0004	.0005	.0000
%RSD	7.069	202.1	108.7	150.4	68.68	62.46	7.821	90.85	12.49
#1	.0276	.0029	-0.0347	-0.0219	-0.0013	.0001	.0058	-0.0008	-0.0001
#2	.0318	-0.0162	.0056	-0.0260	-0.0003	.0003	.0052	.0000	-0.0002
#3	.0297	-0.0015	-0.0381	.0093	-0.0007	.0001	.0061	-0.0009	-0.0001
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	<b>-0.0002</b>	<b>.0010</b>	<b>.0002</b>	<b>91.92</b>	<b>-0.0007</b>	<b>-0.0014</b>	<b>-0.0027</b>		
Stddev	.0003	.0006	.0001	.11	.0007	.0008	.0010		
%RSD	183.5	56.98	44.64	.1160	106.8	59.82	35.96		
#1	-0.0005	.0015	.0002	91.99	-0.0012	-0.0024	-0.0038		
#2	-0.0001	.0004	.0001	91.79	-0.0011	-0.0009	-0.0021		
#3	.0001	.0010	.0002	91.96	.0002	-0.0009	-0.0021		

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Sample Name: sconf Acquired: 4/3/2019 21:11:56 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	113090.	10338.	4574.7	10072.
Stddev	69.	64.	1.4	4.
%RSD	.06139	.61556	.03049	.03740
#1	113110.	10397.	4575.1	10072.
#2	113020.	10346.	4573.1	10077.
#3	113150.	10271.	4575.8	10069.

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Sample Name: coconf Acquired: 4/3/2019 21:17:25 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-0.0001</b>	<b>-0.0001</b>	<b>-0.0005</b>	<b>F 10.45</b>	<b>.0000</b>	<b>-0.0007</b>	<b>.0000</b>	<b>.0001</b>	<b>.0003</b>
Stddev	.0001	.0001	.0002	.00	.0001	.0002	.0000	.0001	.0005
%RSD	192.1	201.3	30.54	.0253	1235.	34.20	49.06	160.8	150.6
#1	-0.0001	-0.0001	-0.0004	10.45	.0001	-0.0008	.0000	.0002	.0009
#2	.0001	.0001	-0.0004	10.44	-0.0001	-0.0004	.0000	-0.0001	.0001
#3	-0.0002	-0.0002	-0.0007	10.45	.0001	-0.0008	.0000	.0001	.0000
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.0003</b>	<b>-0.0003</b>	<b>-0.0002</b>	<b>.0011</b>	<b>-0.0002</b>	<b>.0002</b>	<b>-0.0003</b>	<b>-0.0208</b>	<b>-0.0130</b>
Stddev	.0002	.0000	.0007	.0016	.0011	.0014	.0013	.0045	.0042
%RSD	53.59	16.77	382.1	143.7	459.8	691.8	460.7	21.48	32.39
#1	.0004	-0.0003	.0003	.0013	-0.0008	-0.0003	-0.0002	-0.0182	-0.0118
#2	.0005	-0.0002	-0.0010	.0026	.0010	-0.0009	-0.0016	-0.0182	-0.0177
#3	.0001	-0.0003	.0001	-0.0006	-0.0010	.0018	.0010	-0.0260	-0.0096
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-0.0012</b>	<b>-0.0031</b>	<b>-0.0142</b>	<b>-0.0148</b>	<b>-0.0025</b>	<b>-0.0000</b>	<b>-0.0009</b>	<b>-0.0000</b>	<b>-0.0001</b>
Stddev	.0015	.0165	.0181	.0063	.0004	.0002	.0005	.0004	.0001
%RSD	126.5	533.0	127.4	42.15	14.18	1014.	57.29	825.7	86.97
#1	-0.0013	-0.0175	.0041	-0.0208	-0.0021	-0.0002	-0.0015	-0.0000	-0.0002
#2	.0004	.0149	-0.0320	-0.0083	-0.0026	.0002	-0.0006	.0003	-0.0001
#3	-0.0026	-0.0068	-0.0147	-0.0154	-0.0028	-0.0000	-0.0006	-0.0004	-0.0000
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	<b>-0.0008</b>	<b>-0.0016</b>	<b>.0002</b>	<b>.0088</b>	<b>.0131</b>	<b>-0.0003</b>	<b>-0.0037</b>		
Stddev	.0004	.0007	.0001	.0010	.0003	.0012	.0008		
%RSD	51.24	44.91	31.99	11.38	2.501	476.4	20.49		
#1	-0.0011	-0.0023	.0002	.0096	.0134	.0011	-0.0034		
#2	-0.0003	-0.0016	.0003	.0076	.0128	-0.0010	-0.0046		
#3	-0.0010	-0.0008	.0002	.0090	.0130	-0.0010	-0.0032		

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Sample Name: coconf Acquired: 4/3/2019 21:17:25 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	113030.	10342.	4547.3	10035.
Stddev	368.	28.	9.7	10.
%RSD	.32545	.27058	.21305	.09902
#1	113420.	10371.	4541.4	10040.
#2	112700.	10316.	4558.5	10043.
#3	112960.	10338.	4542.0	10024.

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Sample Name:alconf Acquired: 4/3/2019 21:22:54 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-0.011</b>	<b>-0.001</b>	<b>.0002</b>	<b>-0.001</b>	<b>.0004</b>	<b>.0010</b>	<b>-0.009</b>	<b>-0.010</b>	<b>.0007</b>
Stddev	.0003	.0000	.0001	.0001	.0004	.0004	.0000	.0002	.0005
%RSD	23.39	6.298	85.72	147.4	95.68	43.53	2.036	17.14	75.21
#1	-0.013	-0.001	.0000	-0.001	.0007	.0009	-0.009	-0.012	.0013
#2	-0.008	-0.001	.0003	-0.002	-0.000	.0006	-0.009	-0.008	.0006
#3	-0.012	-0.001	.0001	.0001	.0005	.0015	-0.009	-0.011	.0003
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-0.002</b>	<b>.0005</b>	<b>.0002</b>	<b>-0.007</b>	<b>-0.009</b>	<b>-0.012</b>	<b>.0020</b>	<b>F 533.6</b>	<b>.0012</b>
Stddev	.0003	.0002	.0012	.0008	.0010	.0025	.0026	.8	.0029
%RSD	121.8	28.98	606.8	117.3	110.9	205.3	131.3	.1516	237.9
#1	.0001	.0007	.0011	.0001	.0002	.0013	.0001	533.7	-0.006
#2	-0.003	.0004	.0006	-0.007	-0.012	-0.036	.0009	534.4	.0046
#3	-0.005	.0005	-0.012	-0.014	-0.016	-0.013	.0049	532.8	-0.003
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.0060</b>	<b>.0104</b>	<b>-0.2016</b>	<b>-0.0157</b>	<b>-0.0042</b>	<b>-0.0017</b>	<b>.0051</b>	<b>-0.012</b>	<b>-0.000</b>
Stddev	.0054	.0333	.0256	.0067	.0015	.0000	.0014	.0004	.0001
%RSD	90.13	320.9	12.71	43.00	35.67	2.802	27.23	29.47	135.9
#1	.0050	.0373	-0.2167	-0.0176	-0.0028	-0.0017	.0066	-0.016	-0.001
#2	.0117	-0.268	-0.2161	-0.0082	-0.0058	-0.0018	.0048	-0.010	-0.001
#3	.0011	.0206	-0.1720	-0.0212	-0.0041	-0.0017	.0038	-0.010	.0000
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	<b>-0.005</b>	<b>.0044</b>	<b>.0000</b>	<b>-0.0074</b>	<b>-0.0020</b>	<b>-0.0001</b>	<b>.0024</b>		
Stddev	.0002	.0015	.0002	.0035	.0011	.0013	.0011		
%RSD	44.47	32.79	406.2	47.78	58.78	190.1	46.93		
#1	-0.005	.0059	-0.002	-0.0034	-0.0015	.0013	.0035		
#2	-0.007	.0045	.0002	-0.0101	-0.0011	-0.0003	.0012		
#3	-0.003	.0030	.0000	-0.0087	-0.0033	-0.0012	.0024		

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7.3  
7

Sample Name:alconf Acquired: 4/3/2019 21:22:54 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	<b>105890.</b>	<b>10612.</b>	<b>4705.7</b>	<b>8916.6</b>
Stddev	161.	43.	10.2	10.7
%RSD	.15165	.40982	.21664	.12055
#1	106050.	10660.	4712.0	8926.2
#2	105880.	10576.	4693.9	8905.0
#3	105730.	10599.	4711.2	8918.5

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Sample Name:caconf Acquired: 4/3/2019 21:28:14 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	<b>.0004</b>	<b>-0.002</b>	<b>-0.001</b>	<b>.0001</b>	<b>.0003</b>	<b>.0003</b>	<b>.0003</b>	<b>-0.002</b>	
Stddev	.0002	.0000	.0001	.0002	.0001	.0003	.0000	.0003	
%RSD	39.03	13.02	176.8	106.6	30.77	84.02	12.02	143.9	
#1	.0006	-0.002	.0001	.0001	.0003	.0005	.0004	-0.000	
#2	.0002	-0.002	-0.001	.0001	.0003	.0004	.0003	-0.000	
#3	.0005	-0.002	-0.001	.0003	.0002	.0000	.0003	-0.005	
Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	<b>.0019</b>	<b>-0.003</b>	<b>-0.0017</b>	<b>.0001</b>	<b>.0009</b>	<b>-0.013</b>	<b>-0.012</b>	<b>.0008</b>	
Stddev	.0004	.0001	.0001	.0007	.0004	.0003	.0010	.0010	
%RSD	22.20	19.63	6.170	973.7	49.42	22.10	83.90	134.1	
#1	.0021	-0.003	-0.0017	-0.0003	.0010	-0.013	-0.011	.0008	
#2	.0014	-0.003	-0.0016	.0009	.0004	-0.016	-0.023	-0.003	
#3	.0022	-0.002	-0.0018	-0.0004	.0013	-0.010	-0.003	.0017	
Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	<b>-0.0223</b>	<b>F 390.1</b>	<b>-0.0030</b>	<b>.0060</b>	<b>-0.1592</b>	<b>-0.0191</b>	<b>-0.012</b>	<b>-0.012</b>	
Stddev	.0096	37.5	.0033	.0226	.0196	.0062	.0002	.0001	
%RSD	43.06	9.621	109.6	375.9	12.30	32.47	18.21	9.751	
#1	-0.0316	392.2	-0.0025	-0.0146	-0.1783	-0.0236	-0.013	-0.012	
#2	-0.0229	351.6	-0.0066	.0024	-0.1392	-0.0120	-0.012	-0.011	
#3	-0.0124	426.5	.0000	.0302	-0.1601	-0.0218	-0.009	-0.013	
Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	<b>.0055</b>	<b>-0.0017</b>	<b>W -0.0030</b>	<b>-0.0011</b>	<b>.0014</b>	<b>-0.0001</b>	<b>.0160</b>	<b>.0006</b>	
Stddev	.0006	.0003	.0002	.0006	.0003	.0002	.0025	.0008	
%RSD	10.10	18.24	5.858	57.87	21.78	242.3	15.81	126.7	
#1	.0050	-0.0020	-0.0030	-0.0009	.0016	.0000	.0135	.0002	
#2	.0061	-0.0015	-0.0028	-0.0006	.0010	-0.0002	.0186	.0015	
#3	.0055	-0.0015	-0.0032	-0.0018	.0014	.0000	.0159	.0001	

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Sample Name: caconf Acquired: 4/3/2019 21:28:14 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Li6707	P_1774		
Units	ppm	ppm		
Avg	W <b>-0143</b>	<b>-0081</b>		
Stddev	.0015	.0015		
%RSD	10.45	18.15		
#1	-0137	-0079		
#2	-0133	-0068		
#3	-0161	-0097		
Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	103880.	10220.	4164.5	8596.7
Stddev	209.	829.	2.8	7.7
%RSD	.20111	8.1150	.06723	.08962
#1	104100.	10104.	4161.4	8593.6
#2	103860.	11101.	4165.5	8590.9
#3	103690.	9454.5	4166.7	8605.4

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Sample Name: mgconf Acquired: 4/3/2019 21:33:41 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-0000</b>	<b>-0000</b>	<b>-0001</b>	<b>-0004</b>	<b>-0006</b>	<b>.0006</b>	<b>.0015</b>	<b>-0001</b>	<b>.0005</b>
Stddev	.0001	.0001	.0001	.0001	.0001	.0002	.0000	.0001	.0001
%RSD	142.2	147.3	138.5	13.49	12.97	32.81	1.311	113.4	24.22
#1	.0000	-0001	.0000	-0004	-0007	.0004	.0015	.0000	.0005
#2	-0000	-0001	-0001	-0003	-0007	.0008	.0015	-0003	.0004
#3	-0001	.0000	-0001	-0003	-0006	.0008	.0015	-0001	.0006
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-0008</b>	<b>.0014</b>	<b>-0003</b>	<b>-0009</b>	<b>-0013</b>	<b>.0004</b>	<b>-0004</b>	<b>.0035</b>	<b>.0346</b>
Stddev	.0005	.0000	.0005	.0014	.0006	.0013	.0008	.0049	.0031
%RSD	54.52	2.398	193.6	156.4	49.80	288.8	215.2	140.0	9.072
#1	-0006	.0014	-0002	.0002	-0010	.0007	-0007	.0090	.0315
#2	-0014	.0014	-0009	-0025	-0020	.0016	.0005	-0001	.0346
#3	-0005	.0014	.0002	-0005	-0008	-0009	-0009	.0015	.0378
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sr1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.0074</b>	<b>F 535.7</b>	<b>-2031</b>	<b>.0085</b>	<b>-0006</b>	<b>.0007</b>	<b>.0032</b>	<b>-0005</b>	<b>-0000</b>
Stddev	.0026	2.0	.0334	.0135	.0009	.0001	.0003	.0002	.0000
%RSD	34.68	.3818	16.44	158.5	139.4	10.53	9.808	45.95	58.55
#1	.0093	537.6	-.1940	.0021	-0010	.0008	.0029	-0003	-0000
#2	.0045	536.1	-.2402	-0006	.0004	.0006	.0035	-0007	-0000
#3	.0084	533.5	-.1753	.0240	-0013	.0006	.0032	-0006	-0001
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	<b>-0005</b>	<b>.0047</b>	<b>-0001</b>	<b>-0080</b>	<b>-0002</b>	<b>-0009</b>	<b>.0013</b>		
Stddev	.0003	.0004	.0000	.0013	.0003	.0010	.0018		
%RSD	49.16	7.541	42.55	15.90	154.1	115.2	132.9		
#1	-0008	.0051	-0001	-0088	-0005	-0005	-0007		
#2	-0003	.0045	-0000	-0087	.0001	-0020	.0021		
#3	-0005	.0044	-0001	-0065	-0003	-0001	.0025		

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7.3  
7

Sample Name: mgconf Acquired: 4/3/2019 21:33:41 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	102650.	9861.9	4168.9	8562.7
Stddev	170.	29.4	7.0	4.7
%RSD	.16568	.29762	.16910	.05472
#1	102460.	9828.3	4175.8	8567.8
#2	102790.	9874.8	4161.7	8558.7
#3	102700.	9882.6	4169.2	8561.4

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Sample Name: niconf Acquired: 4/3/2019 21:39:11 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>-0000</b>	<b>-0001</b>	<b>W -0010</b>	<b>.0002</b>	<b>.0000</b>	<b>.0000</b>	<b>-0003</b>	<b>F 9.741</b>	
Stddev	.0001	.0001	.0001	.0002	.0002	.0003	.0000	.014	
%RSD	3474.	57.22	7.785	117.1	829.4	1889.	16.70	.1473	
#1	.0001	-0001	-0010	.0004	-0001	.0000	-0003	9.751	
#2	-0001	-0001	-0009	-0001	-0002	-0003	-0003	9.747	
#3	-0001	-0000	-0011	.0002	-0001	.0003	-0002	9.725	
Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	<b>.0007</b>	<b>.0002</b>	<b>.0003</b>	<b>-0003</b>	<b>-0005</b>	<b>-0007</b>	<b>-0009</b>	<b>.0006</b>	
Stddev	.0003	.0001	.0000	.0003	.0005	.0006	.0007	.0009	
%RSD	46.22	36.69	8.036	124.1	111.3	79.41	85.18	145.5	
#1	.0005	.0001	.0002	-0002	-0010	-0001	-0012	.0015	
#2	.0010	.0002	.0003	-0000	-0000	-0010	-0000	-0003	
#3	.0006	.0003	.0002	-0006	-0004	-0011	-0013	.0006	
Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	<b>.0034</b>	<b>-0075</b>	<b>-0018</b>	<b>.0407</b>	<b>-0430</b>	<b>-0089</b>	<b>-0012</b>	<b>.0000</b>	
Stddev	.0119	.0025	.0019	.0193	.0082	.0060	.0007	.0001	
%RSD	343.8	33.84	106.4	47.44	18.96	68.00	54.02	1635.	
#1	.0143	-0092	-0029	.0214	-0396	-0157	-0005	-0001	
#2	-0092	-0046	-0029	.0600	-0523	-0043	-0015	.0001	
#3	.0053	-0088	.0004	.0406	-0372	-0067	-0017	-0000	
Elem	Si2124	Sr1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	<b>.0022</b>	<b>-0007</b>	<b>-0001</b>	<b>-0005</b>	<b>.0025</b>	<b>.0001</b>	<b>-0037</b>	<b>-0017</b>	
Stddev	.0006	.0002	.0001	.0002	.0002	.0002	.0007	.0007	
%RSD	26.99	26.99	147.5	46.42	7.417	161.3	20.27	41.91	
#1	.0026	-0009	-0001	-0007	.0024	.0002	-0039	-0021	
#2	.0024	-0008	-0001	-0003	.0028	.0002	-0043	-0021	
#3	.0015	-0005	.0000	-0006	.0024	-0001	-0028	-0009	

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Zoom In  
Zoom Out

Sample Name: niconf Acquired: 4/3/2019 21:39:11 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Li6707	P_1774
Units	ppm	ppm
Avg	-0.008	0.063
Stddev	.0011	.0010
%RSD	148.3	16.32

#1	-0.019	.0057
#2	.0004	.0075
#3	-.0007	.0058

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	113110.	10317.	4547.6	9991.3
Stddev	89.	12.	8.0	24.2
%RSD	.07831	.11452	.17632	.24219

#1	113080.	10305.	4553.6	10003.
#2	113040.	10316.	4538.5	9963.4
#3	113210.	10329.	4550.7	10007.

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Zoom In  
Zoom Out

Sample Name: ccv Acquired: 4/3/2019 21:44:39 Type: QC  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.950	1.934	1.962	1.927	1.947	1.901	1.970	1.962	2.391
Stddev	.004	.006	.002	.001	.004	.006	.001	.001	.0001
%RSD	.2155	.3048	.0993	.0749	.1983	.2961	.0585	.0576	.0562

#1	1.954	1.940	1.961	1.928	1.943	1.906	1.968	1.963	2.392
#2	1.949	1.933	1.962	1.925	1.946	1.895	1.969	1.961	2.390
#3	1.945	1.929	1.965	1.927	1.951	1.903	1.971	1.962	2.392

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.933	1.970	1.932	2.006	1.961	1.924	1.936	38.63	38.85
Stddev	.002	.004	.002	.002	.002	.005	.003	.05	.09
%RSD	.0763	.1895	.1257	.0979	.0815	.2721	.1291	.1247	.2424

#1	1.934	1.971	1.933	2.003	1.960	1.922	1.935	38.69	38.95
#2	1.931	1.966	1.930	2.006	1.963	1.920	1.933	38.60	38.76
#3	1.933	1.973	1.935	2.007	1.961	1.930	1.938	38.61	38.84

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	38.93	38.63	38.30	38.60	1.960	1.967	4.885	1.989	1.950
Stddev	.11	.29	.09	.07	.001	.001	.007	.004	.005
%RSD	.2884	.7549	.2428	.1800	.0399	.0578	.1364	.2132	.2468

#1	39.05	38.92	38.40	38.66	1.960	1.967	4.878	1.994	1.955
#2	38.83	38.34	38.22	38.52	1.960	1.966	4.888	1.986	1.948
#3	38.90	38.64	38.28	38.61	1.961	1.968	4.890	1.987	1.946

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

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7.3  
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Zoom In  
Zoom Out

Sample Name: ccv Acquired: 4/3/2019 21:44:39 Type: QC  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.955	1.948	1.946	1.920	1.930	1.905	1.956
Stddev	.001	.004	.001	.005	.001	.001	.004
%RSD	.0700	.1879	.0716	.2541	.0259	.0645	.2304

#1	1.954	1.948	1.947	1.915	1.929	1.905	1.954
#2	1.953	1.945	1.946	1.921	1.930	1.906	1.952
#3	1.956	1.952	1.944	1.925	1.930	1.904	1.961

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	106920.	10133.	4409.7	8983.5
Stddev	332.	101.	6.1	10.2
%RSD	.31092	.99903	.13734	.11335

#1	107180.	10077.	4408.9	8978.0
#2	107030.	10250.	4416.1	8995.2
#3	106550.	10072.	4404.1	8977.2

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Zoom In  
Zoom Out

Sample Name: ccb Acquired: 4/3/2019 21:49:40 Type: QC  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	0.001	-0.000	0.002	0.000	-0.000	0.002	0.003	0.001	0.005
Stddev	0.001	0.002	0.001	0.003	0.003	0.002	0.000	0.002	0.003
%RSD	56.07	784.3	56.36	1153.	2237.	127.4	12.18	214.0	68.65

#1	0.001	-0.001	0.002	0.003	0.003	0.003	0.004	0.003	0.008
#2	0.002	-0.001	0.003	-0.003	-0.001	0.003	0.003	-0.001	0.005
#3	0.001	0.002	0.001	-0.000	-0.003	-0.001	0.003	0.001	0.001

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	0.003	-0.001	0.004	-0.003	-0.002	0.009	-0.006	0.045	-0.014
Stddev	0.001	0.001	0.008	0.012	0.003	0.012	0.011	0.147	0.045
%RSD	22.51	138.1	210.7	348.3	165.6	141.0	181.6	326.1	325.8

#1	0.003	-0.000	0.008	0.008	0.001	0.001	-0.006	-0.112	-0.051
#2	0.002	0.000	-0.005	-0.016	-0.002	0.003	0.005	0.066	-0.025
#3	0.003	-0.002	0.009	-0.003	-0.005	0.023	-0.017	0.181	0.035

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	0.017	-0.022	0.052	-0.040	0.003	0.002	0.003	0.002	0.000
Stddev	0.018	0.146	0.126	0.166	0.001	0.002	0.006	0.002	0.001
%RSD	111.0	651.6	241.7	410.3	37.28	108.0	182.4	73.31	258.6

#1	0.014	-0.188	0.171	-0.072	0.004	0.002	0.001	0.001	-0.001
#2	0.036	0.031	-0.080	-0.231	0.002	0.004	0.011	0.004	0.000
#3	-0.000	0.089	0.066	0.038	0.003	-0.000	-0.001	0.002	0.001

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

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Sample Name: ccb Acquired: 4/3/2019 21:49:40 Type: QC  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001	.0005	.0002	-0.0032	.0005	.0001	-0.0038
Stddev	.0004	.0004	.0002	.0005	.0007	.0009	.0002
%RSD	357.8	80.67	73.80	16.90	139.9	1157.	6.236

#1	.0005	.0009	.0002	-0.0033	.0013	-0.0009	-0.0036
#2	-0.0003	.0001	.0004	-0.0038	.0005	.0002	-0.0040
#3	.0001	.0005	.0001	-0.0027	-0.0002	.0010	-0.0037

Check ? High Limit Low Limit  
 Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	113160.	10262.	4549.3	10002.
Stddev	289.	30.	5.5	3.
%RSD	.25526	.28905	.12053	.02666

#1	112840.	10228.	4554.2	10002.
#2	113250.	10282.	4543.4	9999.4
#3	113400.	10275.	4550.3	10005.

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Sample Name: jc85513-2 Acquired: 4/3/2019 21:55:09 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0706	-0.0001	.0000	-0.0003	.0007	.0007	.0008	-0.0000	.0008
Stddev	.0001	.0001	.0002	.0003	.0002	.0002	.0000	.0003	.0001
%RSD	.1086	56.96	1002.	117.3	31.96	22.91	4.524	1877.	18.45

#1	.0706	-0.0002	.0002	-0.0006	.0005	.0006	.0008	.0003	.0009
#2	.0705	-0.0001	-0.0002	.0000	.0006	.0009	.0007	-0.0003	.0006
#3	.0705	-0.0000	.0001	-0.0002	.0009	.0006	.0008	.0000	.0008

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001	-0.0001	-0.0002	-0.0007	-0.0000	-0.0002	-0.0006	-0.0090	20.10
Stddev	.0003	.0001	.0005	.0009	.0006	.0010	.0004	.0094	.05
%RSD	269.3	65.31	242.2	129.4	19440.	464.1	71.24	105.0	2268

#1	.0003	-0.0000	.0002	-0.0017	-0.0005	-0.0014	-0.0010	-0.163	20.15
#2	.0001	-0.0001	-0.0007	-0.0004	-0.0001	.0004	-0.0004	-0.124	20.06
#3	-0.0002	-0.0001	-0.0001	.0000	.0006	.0003	-0.0003	.0017	20.10

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0130	4.399	2.261	36.92	.0489	.0003	4.156	-0.011	.0847
Stddev	.0028	.027	.022	.12	.0004	.0002	.003	.0007	.0003
%RSD	21.50	.6123	.9818	.3162	.8437	67.24	.0798	64.67	2982

#1	.0100	4.369	2.271	37.06	.0490	.0006	4.157	-0.003	.0847
#2	.0132	4.421	2.235	36.85	.0493	.0004	4.159	-0.017	.0845
#3	.0156	4.406	2.276	36.86	.0485	.0001	4.153	-0.014	.0850

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0009	.0051	-0.0011	3.499	-0.0017	-0.0005	.0006
Stddev	.0003	.0002	.0001	.006	.0007	.0003	.0005
%RSD	30.63	3.952	105.7	.1710	40.79	54.13	78.15

#1	-0.0007	.0048	-0.0003	3.503	-0.0010	-0.0007	.0004
#2	-0.0007	.0051	-0.0000	3.501	-0.0024	-0.0002	.0012
#3	-0.0012	.0052	-0.0001	3.492	-0.0017	-0.0007	.0003

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Sample Name: jc85513-2 Acquired: 4/3/2019 21:55:09 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	109640.	10343.	4444.0	9457.7
Stddev	363.	77.	5.4	3.3
%RSD	.33150	.74120	.12201	.03495

#1	109230.	10277.	4439.9	9454.3
#2	109810.	10326.	4441.9	9458.0
#3	109890.	10427.	4450.1	9460.9

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Sample Name: jc85513-3 Acquired: 4/3/2019 22:00:31 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0652	-0.0000	.0001	-0.0001	.0009	.0008	.0097	.0003	.0007
Stddev	.0003	.0001	.0002	.0001	.0003	.0003	.0000	.0002	.0002
%RSD	.3845	869.7	294.6	215.8	39.65	31.79	4.057	65.31	32.57

#1	.0651	-0.0001	.0004	-0.0001	.0005	.0006	.0098	.0003	.0008
#2	.0650	-0.0001	-0.0000	-0.0002	.0010	.0007	.0097	.0001	.0009
#3	.0655	.0001	-0.0001	.0001	.0011	.0011	.0097	.0004	.0005

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0005	.0005	-0.0001	-0.0001	.0008	.0002	-0.0005	.0697	14.59
Stddev	.0002	.0001	.0013	.0011	.0013	.0012	.0009	.0116	.01
%RSD	41.66	17.29	1073.	808.0	168.6	658.1	172.3	16.65	.0897

#1	.0007	.0005	.0001	-0.0013	.0016	-0.0002	-0.0000	.0830	14.59
#2	.0003	.0005	.0011	-0.0001	-0.0007	-0.0008	-0.0015	.0613	14.60
#3	.0006	.0004	-0.0015	.0010	.0015	.0015	.0000	.0650	14.58

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1186	2.821	1.127	46.79	.0327	-0.0001	4.382	-0.012	.0740
Stddev	.0063	.022	.022	.02	.0002	.0001	.006	.0004	.0003
%RSD	5.301	.7859	1.938	.0438	.6056	97.14	.1388	32.78	.3727

#1	.1199	2.797	1.151	46.77	.0329	-0.0000	4.389	-0.010	.0738
#2	.1241	2.824	1.122	46.81	.0325	-0.0000	4.377	-0.017	.0738
#3	.1117	2.841	1.108	46.78	.0327	-0.0002	4.379	-0.009	.0743

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0021	.0057	-0.0000	3.856	-0.0012	.0002	.0117
Stddev	.0002	.0005	.0001	.009	.0008	.0007	.0005
%RSD	11.15	8.974	2226.	2316.	64.95	303.1	4.510

#1	.0018	.0060	.0000	3.866	-0.0004	-0.0005	.0115
#2	.0021	.0051	-0.0002	3.849	-0.0020	.0009	.0113
#3	.0022	.0059	.0001	3.852	-0.0012	.0002	.0123

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Sample Name: jc85513-3 Acquired: 4/3/2019 22:00:31 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	110190.	10318.	4428.0	9421.6
Stddev	223.	35.	4.8	6.4
%RSD	.20254	.34234	.10774	.06760
#1	109940.	10342.	4424.3	9417.9
#2	110300.	10335.	4426.3	9417.9
#3	110340.	10277.	4433.4	9428.9

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Sample Name: jc85513-4 Acquired: 4/3/2019 22:05:53 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1366	-0.0000	.0002	-0.0001	.0009	.0009	.0044	.0003	.0005
Stddev	.0002	.0000	.0001	.0002	.0004	.0004	.0000	.0003	.0002
%RSD	.1538	20.49	44.77	120.0	40.62	48.06	.3220	95.75	35.04
#1	.1367	-0.0000	.0003	-0.0002	.0005	.0010	.0044	.0001	.0004
#2	.1364	-0.0000	.0002	-0.0002	.0012	.0004	.0044	.0002	.0004
#3	.1368	-0.0001	.0001	.0001	.0010	.0012	.0044	.0007	.0006
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002	.0003	-0.0009	.0004	.0005	.0004	-0.0011	.0108	23.02
Stddev	.0003	.0001	.0007	.0003	.0008	.0003	.0005	.0020	.01
%RSD	184.4	20.67	83.32	84.58	169.3	78.68	46.18	18.65	.0515
#1	.0002	.0003	-0.0002	.0007	-0.0005	.0004	-0.0017	.0115	23.03
#2	-0.0002	.0003	-0.0016	.0003	.0010	.0001	-0.0010	.0085	23.01
#3	.0005	.0002	-0.0007	.0001	.0009	.0006	-0.0007	.0123	23.01
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0288	4.512	1.680	53.64	.0834	-0.0002	4.276	-0.012	1.290
Stddev	.0008	.033	.005	.04	.0010	.0001	.004	.0002	.0002
%RSD	2.722	.7388	.2757	.0746	1.152	42.71	.1035	19.29	.1782
#1	.0282	4.483	1.676	53.68	.0831	-0.0002	4.275	-0.010	.1292
#2	.0284	4.505	1.685	53.64	.0845	-0.0002	4.280	-0.013	.1288
#3	.0297	4.549	1.679	53.60	.0826	-0.0001	4.272	-0.014	.1290
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	-0.0004	.0050	-0.0003	3.688	-0.0020	-0.0005	.0042		
Stddev	.0006	.0008	.0003	.016	.0012	.0015	.0008		
%RSD	126.2	15.49	80.54	4.371	58.54	315.0	20.27		
#1	-0.0004	.0045	-0.0001	3.693	-0.0032	.0012	.0042		
#2	.0001	.0046	-0.0006	3.700	-0.0009	-0.0008	.0033		
#3	-0.0010	.0059	-0.0003	3.669	-0.0019	-0.0018	.0050		

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Sample Name: jc85513-4 Acquired: 4/3/2019 22:05:53 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	109470.	10333.	4410.7	9342.1
Stddev	236.	32.	2.1	6.3
%RSD	.21543	.30994	.04766	.06763
#1	109640.	10317.	4412.1	9349.3
#2	109560.	10370.	4408.3	9337.9
#3	109200.	10312.	4411.6	9339.0

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Sample Name: jc85513-7 Acquired: 4/3/2019 22:11:15 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0006	.0001	.0002	-0.0001	.0011	.0027	.0002	.0003	.0006
Stddev	.0002	.0001	.0002	.0001	.0003	.0003	.0000	.0001	.0002
%RSD	31.47	227.8	89.09	111.7	24.47	9.934	23.22	17.29	29.47
#1	.0004	.0001	.0003	-0.0001	.0008	.0025	.0001	.0004	.0004
#2	.0006	-0.0001	.0002	-0.0000	.0014	.0026	.0002	.0003	.0007
#3	.0008	.0002	.0000	-0.0003	.0012	.0030	.0002	.0004	.0007
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0003	.0008	-0.0008	.0001	.0001	-0.0001	.0002	.0222	.0540
Stddev	.0001	.0000	.0006	.0006	.0004	.0009	.0011	.0067	.0018
%RSD	50.44	5.736	97.61	690.2	568.5	741.3	713.6	30.23	3.324
#1	.0001	.0008	.0001	-0.0000	-0.0002	-0.0001	-0.0009	.0221	.0529
#2	.0004	.0009	-0.0011	.0008	.0006	-0.0010	.0001	.0289	.0530
#3	.0003	.0008	-0.0008	-0.0005	-0.0001	.0007	.0013	.0155	.0561
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0098	-0.130	-0.0255	.3686	.0013	-0.0000	.1206	-0.0004	.0004
Stddev	.0026	.0365	.0050	.0017	.0004	.0001	.0004	.0002	.0001
%RSD	26.58	280.6	19.47	.4479	30.33	691.3	.3373	62.95	20.61
#1	.0114	.0139	-0.0309	.3705	.0010	-0.0001	.1207	-0.0007	.0004
#2	.0068	-.0546	-.0247	.3682	.0012	-0.0001	.1201	-0.0002	.0005
#3	.0112	.0017	-.0210	.3673	.0018	.0001	.1209	-0.0002	.0004
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	.0003	.0010	.0003	.0038	-0.0010	.0007	-0.0030		
Stddev	.0001	.0006	.0000	.0001	.0010	.0012	.0010		
%RSD	33.61	60.48	4.946	1.904	98.71	160.3	33.48		
#1	.0002	.0012	.0003	.0039	-0.0003	.0020	-0.0019		
#2	.0004	.0014	.0003	.0037	-0.0021	.0004	-0.0038		
#3	.0004	.0003	.0003	.0038	-0.0006	-0.0003	-0.0034		

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Sample Name: jc85513-7 Acquired: 4/3/2019 22:11:15 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	113520.	10389.	4554.5	10019.
Stddev	485.	7.	2.1	2.
%RSD	.42733	.06480	.04507	.01989
#1	113000.	10382.	4553.6	10021.
#2	113960.	10391.	4556.8	10019.
#3	113610.	10395.	4553.1	10017.

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Sample Name: jc85527-1 Acquired: 4/3/2019 22:16:42 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2344	.0002	.0001	.0020	.0093	.0115	3.565	.0069	.0068
Stddev	.0005	.0001	.0002	.0001	.0001	.0005	.004	.0002	.0004
%RSD	.1962	54.29	257.7	5.727	1.138	3.990	.1070	3.289	6.593
#1	.2345	.0001	.0003	.0020	.0094	.0110	3.569	.0068	.0063
#2	.2347	.0001	.0001	.0021	.0094	.0119	3.565	.0068	.0070
#3	.2338	.0003	-.0001	.0019	.0092	.0116	3.561	.0072	.0071
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0123	.0487	.0078	-.0017	.0145	-.0028	-.0006	3.169	102.6
Stddev	.0001	.0002	.0006	.0007	.0008	.0009	.0014	.006	.2
%RSD	.7415	.3401	7.655	44.41	5.321	33.62	226.7	1.791	.2321
#1	.0123	.0487	.0076	-.0008	.0151	-.0039	-.0015	3.175	102.7
#2	.0122	.0489	.0073	-.0020	.0146	-.0022	-.0012	3.164	102.7
#3	.0124	.0486	.0085	-.0022	.0136	-.0023	.0010	3.167	102.3
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sr1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.05	200.4	80.82	1111.	1.329	.0154	23.80	-.0008	1.464
Stddev	.01	.4	.12	21.	.004	.0003	.05	.0003	.000
%RSD	.0330	.1805	.1452	1.853	.2851	1.625	.2110	44.11	.0014
#1	24.05	200.8	80.88	1123.	1.332	.0153	23.85	-.0011	1.464
#2	24.05	200.5	80.89	1123.	1.331	.0152	23.79	-.0006	1.464
#3	24.06	200.1	80.68	1087.	1.325	.0157	23.75	-.0006	1.463
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	.0877	.0263	.0004	13.68	.0012	.0265	4.327		
Stddev	.0016	.0008	.0001	.08	.0010	.0025	.023		
%RSD	1.768	2.854	25.43	6021	85.04	9.390	5.218		
#1	.0872	.0269	.0003	13.78	.0018	.0254	4.352		
#2	.0894	.0267	.0005	13.62	.0000	.0294	4.308		
#3	.0864	.0255	.0004	13.65	.0018	.0248	4.320		

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7.3  
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Sample Name: jc85527-1 Acquired: 4/3/2019 22:16:42 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	94060.	9867.5	3812.4	7378.0
Stddev	41.	36.9	1.9	3.1
%RSD	.04401	.37399	.04996	.04268
#1	94096.	9838.3	3810.7	7381.0
#2	94069.	9855.1	3814.4	7374.7
#3	94015.	9909.0	3812.1	7378.3

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Sample Name: jc85527-2 Acquired: 4/3/2019 22:22:06 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3232	.0000	-.0001	.0026	.0070	.0106	4.693	.0046
Stddev	.0005	.0001	.0002	.0003	.0002	.0001	.007	.0003
%RSD	.1541	2484.	167.6	10.53	2.214	.6879	.1404	7.266
#1	.3237	-.0001	.0001	.0023	.0069	.0105	4.695	.0049
#2	.3227	.0001	-.0001	.0027	.0071	.0106	4.698	.0047
#3	.3232	-.0000	-.0002	.0028	.0068	.0106	4.685	.0042
Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0091	.0102	.0530	.0057	F -.0022	.0216	-.0005	.0002
Stddev	.0010	.0004	.0002	.0005	.0010	.0003	.0014	.0014
%RSD	10.58	3.555	.3009	9.228	46.40	1.256	301.8	883.6
#1	.0096	.0106	.0530	.0063	-.0030	.0214	.0010	-.0001
#2	.0080	.0100	.0531	.0053	-.0024	.0214	-.0005	-.0012
#3	.0096	.0100	.0528	.0056	-.0011	.0219	-.0018	.0017
Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7934	153.6	26.07	F 319.0	113.0	F 144.0	1.723	.0008
Stddev	.0067	.3	.03	1.4	.2	44.	.004	.0007
%RSD	.8466	.2076	.1126	.4371	.1728	3.067	.2599	.3590
#1	.7871	154.0	26.09	320.6	113.1	148.6	1.726	.2015
#2	.8005	153.5	26.04	318.7	112.7	143.6	1.717	.2001
#3	.7926	153.4	26.09	317.8	113.0	139.8	1.725	.2008
Elem	Si2124	Sr1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	23.22	-.0003	2.282	.0303	.0299	.0026	52.02	.0013
Stddev	.01	.0003	.001	.0004	.0009	.0003	.11	.0003
%RSD	.0625	126.0	.0442	1.445	2.927	12.33	.2155	26.54
#1	23.23	-.0007	2.282	.0307	.0292	.0029	51.91	.0017
#2	23.20	-.0000	2.281	.0305	.0309	.0024	52.01	.0012
#3	23.23	-.0001	2.283	.0298	.0297	.0023	52.14	.0011

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Sample Name: jc85527-2 Acquired: 4/3/2019 22:22:06 Type: Unk  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Elem	Li6707	P_1774
Units	ppm	ppm
Avg	<b>.0410</b>	<b>6.388</b>
Stddev	.0008	.017
%RSD	1.846	.2581
#1	.0402	6.374
#2	.0417	6.383
#3	.0411	6.406

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	89032.	9586.4	3622.1	6981.4
Stddev	199.	55.9	2.1	4.7
%RSD	.22353	.58282	.05796	.06700
#1	88938.	9521.9	3623.1	6981.3
#2	88898.	9619.3	3619.7	6976.7
#3	89261.	9618.1	3623.6	6986.0

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Sample Name: jc85527-3 Acquired: 4/3/2019 22:27:29 Type: Unk  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>1.449</b>	<b>.0000</b>	<b>-.0000</b>	<b>.0002</b>	<b>.0030</b>	<b>.0197</b>	<b>.5834</b>	<b>.0017</b>
Stddev	.017	.0000	.0001	.0001	.0004	.0008	.0096	.0004
%RSD	1.184	94.28	161.5	49.99	12.26	3.815	1.650	22.46
#1	1.431	.0000	.0000	.0004	.0032	.0205	.5939	.0014
#2	1.450	.0000	-.0001	.0002	.0026	.0195	.5812	.0017
#3	1.466	.0001	-.0001	.0001	.0033	.0191	.5751	.0022

Elem	Ag3280	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.0039</b>	<b>.0018</b>	<b>.0586</b>	<b>.0006</b>	<b>-.0001</b>	<b>.0573</b>	<b>-.0028</b>	<b>.0011</b>
Stddev	.0004	.0002	.0001	.0016	.0013	.0020	.0005	.0008
%RSD	9.168	9.837	.1352	270.3	2046.	3.482	19.76	72.13
#1	.0035	.0020	.0586	.0004	-.0015	.0577	-.0021	.0007
#2	.0039	.0019	.0585	-.0009	.0002	.0551	-.0030	.0020
#3	.0042	.0016	.0587	.0023	.0011	.0591	-.0031	.0006

Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.1884</b>	<b>160.0</b>	<b>41.89</b>	<b>26.28</b>	<b>21.07</b>	<b>190.9</b>	<b>4095</b>	<b>-.0000</b>
Stddev	.0101	1.9	.51	.35	.26	2.6	.0025	.0001
%RSD	5.371	1.193	1.229	1.322	1.211	1.340	6.226	180.4
#1	.1780	158.1	41.41	26.00	20.81	188.3	.4121	-.0001
#2	.1888	159.9	41.84	26.17	21.07	190.9	.4070	.0000
#3	.1982	161.9	42.43	26.67	21.32	193.4	.4093	-.0001

Elem	Si2124	Sn1899	Sr4077	Ti3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>20.16</b>	<b>.0057</b>	<b>1.110</b>	<b>.0084</b>	<b>.0219</b>	<b>W .0015</b>	<b>1.085</b>	<b>.0011</b>
Stddev	.04	.0005	.014	.0009	.0003	.0001	.003	.0023
%RSD	.2166	9.255	1.223	10.42	1.324	8.002	.2683	203.1
#1	20.21	.0054	1.098	.0085	.0222	-.0014	1.088	.0011
#2	20.12	.0063	1.109	.0075	.0217	-.0015	1.082	-.0011
#3	20.16	.0054	1.125	.0092	.0217	-.0017	1.085	.0035

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7.3  
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Sample Name: jc85527-3 Acquired: 4/3/2019 22:27:29 Type: Unk  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Elem	Li6707	P_1774
Units	ppm	ppm
Avg	<b>.0988</b>	<b>.8015</b>
Stddev	.0015	.0007
%RSD	1.563	.0827
#1	.0972	.8022
#2	.1003	.8009
#3	.0988	.8016

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	103370.	9962.5	4186.1	8484.7
Stddev	1420.	78.9	3.8	15.0
%RSD	1.3735	.79166	.09155	.17622
#1	101830.	10026.	4186.4	8483.3
#2	103680.	9986.6	4189.7	8500.3
#3	104620.	9874.3	4182.1	8470.4

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Sample Name: jc85527-4 Acquired: 4/3/2019 22:32:44 Type: Unk  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.6047</b>	<b>.0001</b>	<b>-.0000</b>	<b>.0014</b>	<b>.0034</b>	<b>.0061</b>	<b>.8450</b>	<b>.0046</b>	<b>.0029</b>
Stddev	.0012	.0001	.0001	.0004	.0003	.0001	.0003	.0003	.0004
%RSD	.2024	66.35	659.7	25.52	8.601	2.422	.0382	7.411	14.15
#1	.6058	.0001	-.0001	.0015	.0031	.0060	.8453	.0047	.0028
#2	.6048	.0000	.0001	.0010	.0036	.0062	.8450	.0050	.0025
#3	.6034	.0001	-.0000	.0016	.0036	.0063	.8446	.0043	.0033

Elem	V_2924	Zn2062	As1890	Ti1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.0035</b>	<b>.0229</b>	<b>.0077</b>	<b>-.0006</b>	<b>.0147</b>	<b>-.0029</b>	<b>-.0000</b>	<b>.4288</b>	<b>127.2</b>
Stddev	.0001	.0001	.0013	.0013	.0006	.0002	.0006	.0081	.3
%RSD	4.293	.6271	16.20	216.5	3.853	5.385	3268.	1.891	.2720
#1	.0034	.0231	.0091	-.0015	.0149	-.0030	-.0007	.4353	127.6
#2	.0037	.0228	.0067	-.0009	.0151	-.0029	.0003	.4197	126.9
#3	.0034	.0228	.0074	-.0011	.0140	-.0027	.0003	.4313	127.0

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>19.35</b>	<b>18.35</b>	<b>14.98</b>	<b>172.8</b>	<b>3.000</b>	<b>.0035</b>	<b>15.78</b>	<b>-.0008</b>	<b>.8374</b>
Stddev	.07	.06	.07	.5	.0007	.0003	.03	.0012	.0034
%RSD	.3861	.3492	.4395	.2737	.2466	8.173	.1641	159.1	.4100
#1	19.35	18.39	15.01	173.4	.3008	.0036	15.79	-.0018	.8390
#2	19.43	18.38	15.03	172.6	.2995	.0032	15.80	-.0010	.8398
#3	19.28	18.27	14.91	172.5	.2996	.0037	15.75	.0005	.8335

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.0139</b>	<b>.0199</b>	<b>-.0008</b>	<b>3.512</b>	<b>-.0010</b>	<b>.0654</b>	<b>.5212</b>
Stddev	.0000	.0008	.0000	.028	.0004	.0006	.0040
%RSD	.2453	3.974	4.670	.7911	45.76	.8499	.7739
#1	.0139	.0196	-.0009	3.532	-.0006	.0654	.5236
#2	.0139	.0207	-.0008	3.524	-.0008	.0659	.5236
#3	.0139	.0192	-.0008	3.480	-.0014	.0648	.5166

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Sample Name: jc85527-4 Acquired: 4/3/2019 22:32:44 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	105160.	10145.	4220.6	8602.4
Stddev	156.	42.	3.8	7.9
%RSD	.14799	.41888	.08906	.09214
#1	105340.	10097.	4220.7	8599.4
#2	105110.	10163.	4216.8	8596.4
#3	105040.	10176.	4224.3	8611.3

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Sample Name: jc85527-5 Acquired: 4/3/2019 22:38:02 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0014	-0.0001	.0001	.0000	.0002	.0006	.0002	.0003	.0007
Stddev	.0002	.0001	.0002	.0001	.0001	.0003	.0000	.0002	.0004
%RSD	11.72	173.1	339.9	655.7	69.92	52.97	12.42	65.05	50.57
#1	.0012	-0.0000	.0002	-0.0001	.0002	.0005	.0002	.0005	.0008
#2	.0013	-0.0002	-0.0001	.0000	.0000	.0010	.0002	.0002	.0003
#3	.0015	.0000	.0001	.0001	.0003	.0004	.0003	.0001	.0010
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002	.0010	.0008	.0001	-0.0002	-0.0005	-0.0003	.0288	.0563
Stddev	.0002	.0002	.0004	.0006	.0005	.0017	.0002	.0099	.0031
%RSD	99.92	15.46	45.16	1042.	242.1	369.0	77.83	34.28	5.460
#1	.0003	.0009	.0004	-0.0002	-0.0001	-0.0024	-0.0001	.0212	.0597
#2	-0.0000	.0010	.0011	-0.0004	.0002	.0004	-0.0003	.0252	.0537
#3	.0004	.0012	.0007	.0008	-0.0007	.0007	-0.0005	.0399	.0554
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0129	.0097	.0228	.2753	.0009	.0002	.0899	-0.0008	.0011
Stddev	.0025	.0323	.0122	.0111	.0004	.0002	.0003	.0008	.0000
%RSD	19.24	332.4	53.58	4.046	45.16	96.14	.3049	95.35	4.188
#1	.0125	.0179	.0368	.2868	.0006	.0003	.0902	-0.0017	.0010
#2	.0156	-0.0259	.0162	.2745	.0008	.0004	.0897	-0.0004	.0010
#3	.0107	.0371	.0153	.2646	.0013	-0.0000	.0899	-0.0003	.0011
Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	.0000	.0008	.0002	.0065	-0.0015	.0001	-0.0021		
Stddev	.0002	.0006	.0001	.0017	.0003	.0003	.0004		
%RSD	412.2	77.61	52.15	26.11	16.65	464.3	17.74		
#1	-0.0001	.0013	.0001	.0046	-0.0016	.0002	-0.0017		
#2	.0002	.0001	.0002	.0071	-0.0013	.0003	-0.0023		
#3	-0.0000	.0011	.0003	.0079	-0.0018	-0.0003	-0.0024		

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7.3  
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Sample Name: jc85527-5 Acquired: 4/3/2019 22:38:02 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	113300.	10253.	4568.1	10053.
Stddev	273.	54.	5.5	5.
%RSD	.24081	.52571	.12019	.04485
#1	113160.	10208.	4564.4	10050.
#2	113120.	10238.	4565.5	10058.
#3	113610.	10313.	4574.4	10050.

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Sample Name: jc85531-1 Acquired: 4/3/2019 22:43:30 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1561	.0000	.0000	.0006	.0012	.0024	.1448	.0040
Stddev	.0002	.0000	.0001	.0002	.0002	.0005	.0001	.0003
%RSD	.1136	140.3	3358.	40.71	14.29	18.99	.0921	6.622
#1	.1562	.0000	.0001	.0003	.0010	.0024	.1449	.0042
#2	.1559	-0.0000	-0.0001	.0007	.0013	.0019	.1446	.0040
#3	.1563	.0001	-0.0000	.0008	.0012	.0028	.1449	.0037
Elem	Ag3280	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0036	.0017	.0055	.0020	.0001	.0003	-0.0001	-0.0010
Stddev	.0006	.0005	.0000	.0008	.0004	.0006	.0018	.0001
%RSD	16.79	27.16	.2863	39.83	607.0	173.8	1309.	11.23
#1	.0037	.0016	.0055	.0011	-0.0003	-0.0003	.0014	-0.0010
#2	.0030	.0023	.0055	.0024	.0005	.0005	.0004	-0.0010
#3	.0042	.0013	.0056	.0024	.0000	.0008	.0021	-0.0008
Elem	Al3961	Ca3179	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3440	29.51	5.827	14.57	36.00	W 222.3	4.241	.0030
Stddev	.0084	.10	.013	.06	.02	.7	.007	.0002
%RSD	2.448	.3532	.2242	.4287	.0524	.3024	.1551	5.869
#1	.3471	29.49	5.817	14.51	36.01	222.9	4.248	.0029
#2	.3504	29.62	5.822	14.63	35.98	221.5	4.239	.0032
#3	.3344	29.42	5.842	14.59	36.02	222.4	4.235	.0028
Elem	Si2124	Sn1899	Sr4077	Tl3349	W_2079	Zr3391	S_1820	Bi2230
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.297	-0.0010	.1607	.0002	.0084	.0007	6.424	-0.0017
Stddev	.005	.0005	.0004	.0002	.0008	.0001	.032	.0009
%RSD	.1507	47.03	.2437	99.03	9.579	16.12	4.930	52.37
#1	3.302	-0.0013	.1602	.0004	.0094	.0008	6.452	-0.0007
#2	3.295	-0.0004	.1609	.0001	.0081	.0006	6.389	-0.0025
#3	3.293	-0.0012	.1609	.0000	.0078	.0007	6.430	-0.0019

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Sample Name: jc85531-1 Acquired: 4/3/2019 22:43:30 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Li6707	P_1774		
Units	ppm	ppm		
Avg	<b>.0021</b>	<b>.0251</b>		
Stddev	.0006	.0014		
%RSD	29.97	5.638		
#1	.0027	.0254		
#2	.0015	.0264		
#3	.0019	.0236		
Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	104930.	10093.	4267.2	8701.7
Stddev	227.	71.	8.6	10.9
%RSD	.21602	.70188	.20216	.12497
#1	104820.	10124.	4259.7	8693.9
#2	104780.	10013.	4265.3	8697.0
#3	105190.	10144.	4276.6	8714.1

Sample Name: ccv Acquired: 4/3/2019 22:48:55 Type: QC  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>1.959</b>	<b>1.927</b>	<b>1.974</b>	<b>1.913</b>	<b>1.948</b>	<b>1.916</b>	<b>1.979</b>	<b>1.968</b>	<b>2.415</b>
Stddev	.004	.004	.001	.003	.003	.005	.001	.003	.0004
%RSD	.1765	.2207	.0253	.1433	.1679	.2564	.0697	.1352	.1827
#1	1.956	1.925	1.974	1.913	1.951	1.919	1.980	1.968	2.419
#2	1.959	1.924	1.975	1.916	1.944	1.919	1.977	1.970	2.416
#3	1.963	1.931	1.975	1.910	1.949	1.911	1.979	1.965	2.411
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>1.946</b>	<b>1.968</b>	<b>1.928</b>	<b>1.997</b>	<b>1.955</b>	<b>1.927</b>	<b>1.926</b>	<b>38.81</b>	<b>38.72</b>
Stddev	.002	.004	.003	.003	.002	.006	.004	.10	.10
%RSD	.0826	.1940	.1761	.1492	.0871	.3035	.2053	.2602	.2453
#1	1.947	1.969	1.924	1.996	1.956	1.924	1.922	38.73	38.63
#2	1.944	1.972	1.931	1.995	1.955	1.934	1.930	38.79	38.70
#3	1.947	1.964	1.929	2.001	1.953	1.924	1.925	38.92	38.82
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>38.63</b>	<b>38.27</b>	<b>38.14</b>	<b>38.17</b>	<b>1.959</b>	<b>1.968</b>	<b>4.879</b>	<b>1.991</b>	<b>1.959</b>
Stddev	.11	.08	.04	.09	.002	.002	.008	.005	.003
%RSD	.2951	.2102	.1090	.2257	.1027	.1185	.1698	.2497	.1480
#1	38.65	38.25	38.15	38.10	1.961	1.965	4.874	1.992	1.956
#2	38.51	38.21	38.09	38.14	1.959	1.970	4.889	1.994	1.959
#3	38.73	38.36	38.17	38.26	1.957	1.967	4.874	1.985	1.962
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Sample Name: ccv Acquired: 4/3/2019 22:48:55 Type: QC  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Tl3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>1.971</b>	<b>1.948</b>	<b>1.980</b>	<b>1.914</b>	<b>1.927</b>	<b>1.910</b>	<b>1.960</b>
Stddev	.001	.006	.001	.005	.004	.003	.002
%RSD	.0445	.3212	.0615	.2596	.2156	.1402	.0820
#1	1.972	1.949	1.962	1.915	1.924	1.908	1.958
#2	1.971	1.955	1.960	1.918	1.932	1.909	1.961
#3	1.970	1.942	1.959	1.909	1.924	1.913	1.960
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							
Int. Std.	Y_3600	Y_3710	Y_2243	In2306			
Units	Cts/S	Cts/S	Cts/S	Cts/S			
Avg	107530.	10225.	4429.0	9044.9			
Stddev	188.	32.	2.4	4.9			
%RSD	.17513	.31426	.05335	.05363			
#1	107380.	10194.	4430.0	9046.0			
#2	107740.	10259.	4426.3	9039.6			
#3	107470.	10222.	4430.6	9049.1			

Sample Name: ccb Acquired: 4/3/2019 22:53:56 Type: QC  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.0001</b>	<b>.0001</b>	<b>.0001</b>	<b>.0001</b>	<b>.0000</b>	<b>.0002</b>	<b>.0002</b>	<b>.0001</b>	<b>.0005</b>
Stddev	.0003	.0001	.0001	.0000	.0002	.0001	.0001	.0002	.0005
%RSD	636.6	41.04	166.6	42.48	664.1	72.07	38.86	174.3	101.4
#1	.0004	.0001	.0002	.0001	.0002	.0003	.0003	.0002	.0001
#2	-.0001	.0001	-.0000	.0001	-.0002	.0000	.0003	.0002	.0002
#3	-.0001	.0002	.0000	.0000	.0001	.0003	.0001	-.0001	.0010
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.0003</b>	<b>-.0001</b>	<b>-.0004</b>	<b>.0010</b>	<b>.0004</b>	<b>.0008</b>	<b>-.0010</b>	<b>-.0049</b>	<b>.0022</b>
Stddev	.0002	.0000	.0001	.0007	.0005	.0010	.0010	.0099	.0014
%RSD	55.62	22.87	28.85	68.45	136.3	125.8	91.50	202.6	64.04
#1	.0003	-.0001	-.0003	.0016	.0005	.0001	-.0000	-.0143	.0030
#2	.0001	-.0001	-.0004	.0010	-.0002	.0020	-.0020	.0055	.0006
#3	.0004	-.0001	-.0004	.0003	.0009	.0004	-.0011	-.0059	.0030
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	<b>.0008</b>	<b>-.0151</b>	<b>.0606</b>	<b>.0817</b>	<b>.0022</b>	<b>.0000</b>	<b>.0008</b>	<b>-.0000</b>	<b>-.0000</b>
Stddev	.0070	.0067	.0188	.0052	.0002	.0000	.0005	.0005	.0001
%RSD	870.7	44.13	31.05	6.395	8.322	143.6	71.64	4182.	189.7
#1	.0012	-.0078	.0468	.0869	.0021	.0001	.0007	-.0002	.0000
#2	-.0064	-.0208	.0820	.0764	.0024	-.0000	.0014	.0005	-.0002
#3	.0075	-.0168	.0528	.0817	.0020	.0000	.0003	-.0004	-.0000
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: ccb Acquired: 4/3/2019 22:53:56 Type: QC  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002	.0002	.0003	-0.0006	-0.0002	.0001	-0.0051
Stddev	.0001	.0011	.0001	.0012	.0012	.0013	.0009
%RSD	71.63	488.8	50.55	209.5	645.3	1170.	16.83

#1	.0003	-0.0006	.0005	.0006	-0.0013	.0000	-0.0041
#2	.0003	-0.0002	.0002	-0.0005	.0011	-0.0011	-0.0052
#3	.0000	.0015	.0002	-0.0018	-0.0003	.0014	-0.0058

Check ? High Limit Low Limit  
 Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	113220.	10214.	4585.2	10078.
Stddev	80.	38.	3.3	5.
%RSD	.07061	.37233	.07187	.05211

#1	113130.	10174.	4588.0	10081.
#2	113280.	10249.	4581.5	10072.
#3	113260.	10219.	4586.0	10081.

Sample Name: mp13758-mb1conf Acquired: 4/3/2019 22:59:25 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0001	-0.0001	.0002	.0001	.0000	.0002	.0000	.0000	.0008
Stddev	.0000	.0001	.0001	.0002	.0005	.0003	.0000	.0002	.0005
%RSD	38.60	65.11	60.97	131.0	9195.	127.2	1400.	19520.	54.91

#1	-0.0001	-0.0000	.0002	.0000	.0004	.0004	-0.0000	.0000	.0003
#2	-0.0001	-0.0001	.0001	.0001	.0002	-0.0001	.0000	-0.0002	.0010
#3	-0.0001	-0.0001	.0002	.0003	-0.0006	.0003	.0000	.0002	.0012

Elem V\_2924 Zn2062 As1890 Tl1908 Pb2203 Se1960 Sb2068 Al3961 Ca3179  
 Units ppm ppm ppm ppm ppm ppm ppm ppm ppm  
 Avg .0001 .0011 .0002 -0.0007 -0.0001 .0010 -0.0011 -0.110 -0.077  
 Stddev .0001 .0001 .0006 .0001 .0006 .0017 .0008 .0071 .0022  
 %RSD 77.60 7.358 249.7 19.96 560.6 180.4 67.38 64.60 27.90

#1	.0001	.0010	.0007	-0.0009	-0.0004	.0027	-0.0005	-0.103	.0066
#2	.0002	.0012	-0.0004	-0.0007	-0.0005	-0.0008	-0.0009	-0.184	.0064
#3	.0000	.0011	.0004	-0.0006	.0006	.0010	-0.0020	-0.043	.0102

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0024	-0.0053	-0.0041	.0690	.0015	.0001	.0106	-0.0004	-0.0001
Stddev	.0053	.0172	.0317	.0078	.0007	.0001	.0009	.0005	.0001
%RSD	220.3	326.2	771.4	11.26	48.62	42.08	8.559	130.5	87.52

#1	.0062	-0.168	.0159	.0702	.0023	.0002	.0111	-0.0001	-0.0000
#2	.0047	.0145	-0.0406	.0761	.0010	.0001	.0111	-0.0001	-0.0002
#3	-0.0036	-0.136	.0124	.0607	.0011	.0002	.0095	-0.0009	-0.0001

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.0000	.0008	.0002	.0022	-0.0008	-0.0000	-0.0046
Stddev	.0005	.0003	.0001	.0006	.0004	.0010	.0008
%RSD	1898.	33.17	41.69	24.98	48.18	2945.	16.96

#1	-0.0006	.0010	.0002	.0018	-0.0013	-0.0012	-0.0054
#2	.0001	.0005	.0001	.0021	-0.0007	.0004	-0.0039
#3	.0004	.0009	.0003	.0029	-0.0005	.0007	-0.0045

Sample Name: mp13758-mb1conf Acquired: 4/3/2019 22:59:25 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	114010.	10289.	4567.0	10055.
Stddev	122.	70.	2.8	7.
%RSD	.10715	.68240	.06209	.06484

#1	113920.	10251.	4570.0	10063.
#2	114150.	10370.	4564.4	10050.
#3	113960.	10246.	4566.6	10052.

Sample Name: jc85611-1 Acquired: 4/3/2019 23:04:54 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0116	-0.0000	-0.0001	.0001	.0001	.0008	.0873	.0004	.0009
Stddev	.0002	.0001	.0002	.0001	.0005	.0003	.0002	.0003	.0003
%RSD	1.856	260.8	167.9	100.8	308.8	36.41	.2005	72.41	27.35

#1	.0117	.0000	.0001	.0001	-0.0001	.0006	.0873	.0006	.0009
#2	.0113	-0.0000	-0.0001	.0002	-0.0001	.0011	.0872	.0001	.0007
#3	.0116	-0.0001	-0.0004	-0.0000	.0007	.0007	.0875	.0005	.0012

Elem V\_2924 Zn2062 As1890 Tl1908 Pb2203 Se1960 Sb2068 Al3961 Ca3179  
 Units ppm ppm ppm ppm ppm ppm ppm ppm ppm  
 Avg .0003 .0669 .0006 .0002 .0003 .0005 .0010 .0023 9.408  
 Stddev .0002 .0039 .0004 .0016 .0006 .0016 .0001 .0039 .009  
 %RSD 62.31 5.763 56.00 906.8 208.1 337.7 11.32 172.4 .0948

#1	.0004	.0639	.0002	-0.0015	.0003	-0.0004	-0.0010	-0.0019	9.413
#2	.0001	.0713	.0008	.0017	.0010	-0.0005	-0.0011	.0030	9.414
#3	.0004	.0655	.0009	.0003	-0.0003	.0023	-0.0009	.0057	9.398

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.180	3.203	1.968	32.34	.0430	.0010	2.300	-0.0012	.0594
Stddev	.010	.024	.014	.04	.0005	.0001	.019	.0002	.0001
%RSD	.8826	.7464	.6889	.1296	1.277	5.092	.8201	13.69	.0852

#1	1.187	3.178	1.954	32.33	.0432	.0011	2.306	-0.0014	.0594
#2	1.185	3.206	1.981	32.38	.0435	.0010	2.314	-0.0010	.0594
#3	1.168	3.225	1.970	32.30	.0424	.0010	2.278	-0.0013	.0593

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0014	.0039	-0.0001	3.462	.0013	.0003	-0.0017
Stddev	.0002	.0007	.0001	.032	.0004	.0005	.0006
%RSD	11.41	18.83	65.38	9.280	33.00	185.8	35.05

#1	.0016	.0032	-0.0001	3.470	.0014	.0009	-0.0010
#2	.0014	.0046	-0.0000	3.489	.0008	.0002	-0.0018
#3	.0012	.0040	-0.0001	3.426	.0016	-0.0002	-0.0022

7.3  
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Sample Name: jc85611-1 Acquired: 4/3/2019 23:04:54 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	110850.	10258.	4500.6	9649.3
Stddev	216.	14.	29.6	55.8
%RSD	.19500	.13930	.65815	.57842
#1	110770.	10266.	4481.1	9603.6
#2	111100.	10242.	4486.0	9632.8
#3	110690.	10267.	4534.7	9711.5

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Sample Name: jc85367-4f Acquired: 4/3/2019 23:10:17 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0323	.0001	.0001	.0024	.0008	.0014	3.134	.0003	.0017
Stddev	.0002	.0001	.0002	.0002	.0003	.0004	.007	.0002	.0001
%RSD	.6220	164.2	143.8	7.728	40.67	26.38	.2293	87.93	5.212
#1	.0325	.0000	-.0000	.0025	.0005	.0017	3.130	.0000	.0017
#2	.0325	-.0000	.0003	.0025	.0008	.0010	3.143	.0005	.0017
#3	.0321	.0002	.0001	.0022	.0011	.0016	3.131	.0003	.0016
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0035	.0012	.0053	-.0014	-.0003	.0002	-.0010	.1856	47.52
Stddev	.0003	.0001	.0003	.0003	.0003	.0012	.0008	.0072	.12
%RSD	10.02	8.460	5.419	19.13	103.3	551.1	78.66	3.854	2440
#1	.0038	.0011	.0050	-.0013	-.0006	.0016	-.0019	.1872	47.60
#2	.0031	.0013	.0056	-.0012	-.0003	-.0000	-.0009	.1778	47.39
#3	.0035	.0011	.0053	-.0017	-.0000	-.0009	-.0003	.1918	47.58
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	30.91	27.44	2.499	51.06	.0675	.0008	5.122	-.0021	.1986
Stddev	.06	.06	.017	.04	.0002	.0001	.011	.0005	.0005
%RSD	.2023	.2127	.6586	.0750	.2804	18.59	.2213	21.41	2623
#1	30.91	27.49	2.486	51.08	.0674	.0009	5.133	-.0023	.1990
#2	30.97	27.46	2.518	51.08	.0674	.0007	5.124	-.0016	.1989
#3	30.84	27.38	2.493	51.01	.0677	.0007	5.110	-.0024	.1980
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	-.0013	.0066	-.0004	47.59	.0011	-.0015	.0067		
Stddev	.0002	.0003	.0002	.13	.0013	.0004	.0004		
%RSD	15.04	3.874	56.47	2660	110.7	28.24	6.371		
#1	-.0014	.0063	-.0001	47.74	.0026	-.0014	.0071		
#2	-.0015	.0068	-.0005	47.50	.0002	-.0012	.0064		
#3	-.0011	.0065	-.0004	47.54	.0006	-.0020	.0065		

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Sample Name: jc85367-4f Acquired: 4/3/2019 23:10:17 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	107790.	10199.	4356.9	9194.2
Stddev	103.	31.	5.9	3.7
%RSD	.09560	.30785	.13460	.03972
#1	107820.	10177.	4350.7	9192.1
#2	107680.	10235.	4357.6	9192.0
#3	107860.	10185.	4362.4	9198.4

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Sample Name: mp13672-mb1conf Acquired: 4/3/2019 23:15:39 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0001	-.0001	.0001	.0000	.0004	.0012	.0001	-.0003	.0010
Stddev	.0002	.0001	.0001	.0001	.0006	.0003	.0000	.0002	.0003
%RSD	265.1	123.1	133.5	306.7	142.8	25.48	6.489	91.89	31.87
#1	.0001	.0000	.0002	-.0001	.0008	.0013	.0002	-.0000	.0012
#2	-.0002	-.0001	-.0000	.0001	.0007	.0015	.0001	-.0003	.0011
#3	.0000	-.0001	.0001	.0000	-.0003	.0009	.0001	-.0005	.0006
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000	.0036	-.0003	.0002	-.0000	-.0007	.0002	-.0002	.0158
Stddev	.0003	.0001	.0007	.0009	.0010	.0009	.0002	.0101	.0013
%RSD	749.2	3.768	200.6	474.1	28460.	121.7	105.0	4183.	8.485
#1	.0004	.0035	-.0004	-.0001	-.0002	-.0000	.0002	-.0080	.0154
#2	-.0002	.0037	.0004	-.0005	.0010	-.0004	.0004	.0112	.0147
#3	-.0001	.0037	-.0010	.0012	-.0008	-.0017	-.0000	-.0038	.0173
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0031	.0148	.0048	.0677	.0005	.0002	.0155	-.0008	.0001
Stddev	.0021	.0192	.0250	.0073	.0003	.0001	.0021	.0005	.0001
%RSD	70.21	129.7	523.9	10.84	73.31	54.17	13.55	67.24	66.78
#1	.0024	-.0074	-.0093	.0759	.0008	.0003	.0143	-.0007	.0000
#2	.0013	.0262	-.0101	.0616	.0004	.0001	.0179	-.0014	.0001
#3	.0054	.0255	.0336	.0657	.0001	.0002	.0143	-.0003	.0001
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	-.0005	.0011	.0002	.0131	-.0010	-.0003	-.0065		
Stddev	.0003	.0002	.0001	.0025	.0006	.0006	.0005		
%RSD	75.66	21.43	32.78	19.00	65.90	218.7	8.002		
#1	-.0004	.0013	.0002	.0103	-.0006	-.0005	-.0070		
#2	-.0001	.0009	.0001	.0149	-.0017	-.0008	-.0064		
#3	-.0008	.0010	.0003	.0142	-.0006	.0004	-.0060		

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Sample Name: mp13672-mb1conf Acquired: 4/3/2019 23:15:39 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	113550.	10339.	4554.8	10043.
Stddev	520.	37.	5.4	15.
%RSD	.45776	.35329	.11756	.15156
#1	113670.	10304.	4552.3	10034.
#2	112980.	10377.	4561.0	10061.
#3	113990.	10335.	4551.2	10035.

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Sample Name: mp13672-sd1 Acquired: 4/3/2019 23:21:08 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 5.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0046	.0000	-0.001	-0.003	-0.009	.0024	.0034	.0004	.0036
Stddev	.0004	.0004	.0002	.0014	.0014	.0005	.0002	.0011	.0009
%RSD	9.770	5678.	284.3	518.5	160.2	22.03	6.652	248.9	24.33
#1	.0041	.0002	-0.002	-0.017	-0.003	.0020	.0034	.0006	.0041
#2	.0048	.0003	.0002	.0012	.0002	.0022	.0036	-.0007	.0026
#3	.0048	-.0004	-0.001	-0.004	-.0025	.0030	.0032	.0014	.0041
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0006	.0201	-0.003	-.0012	-.0024	-.0023	-.0000	-.0479	9.743
Stddev	.0011	.0008	.0022	.0034	.0015	.0097	.0026	.0310	.041
%RSD	197.4	3.882	764.3	278.4	61.07	417.7	218000.	64.74	4162
#1	-.0013	.0208	.0009	.0020	.0008	.0077	-.0005	-.0231	9.720
#2	-.0011	.0193	-.0028	.0043	.0038	-.0029	-.0024	-.0380	9.790
#3	.0007	.0202	.0010	-.0025	.0027	-.0117	.0028	-.0827	9.719
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0175	.9732	1.654	79.83	.0331	-.0003	1.698	-.0015	.1091
Stddev	.0172	.0979	.042	.12	.0028	.0004	.002	.0005	.0004
%RSD	98.43	10.06	2.563	.1443	8.594	102.4	.1263	33.23	4016
#1	.0288	.8856	1.617	79.75	.0330	-.0004	1.696	-.0014	.1093
#2	.0259	1.079	1.644	79.78	.0303	.0000	1.700	-.0011	.1093
#3	-.0023	.9550	1.700	79.97	.0360	-.0007	1.698	-.0021	.1086
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	-.0012	.0030	-0.004	4.128	-.0069	-.0009	-.0257		
Stddev	.0013	.0056	.0005	.010	.0083	.0047	.0050		
%RSD	110.5	185.7	112.1	.2439	120.3	515.7	19.55		
#1	-.0015	.0090	-0.000	4.135	-.0107	.0008	-.0257		
#2	-.0024	.0019	-0.010	4.133	.0026	.0027	-.0207		
#3	.0002	-.0020	-0.003	4.117	-.0127	-.0062	-.0308		

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Sample Name: mp13672-sd1 Acquired: 4/3/2019 23:21:08 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 5.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	111580.	10169.	4538.4	9834.2
Stddev	686.	43.	4.7	11.6
%RSD	.61498	.42466	.10294	.11844
#1	111130.	10129.	4541.8	9845.9
#2	111240.	10163.	4533.1	9834.1
#3	112370.	10214.	4540.2	9822.7

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Sample Name: jc85533-2 Acquired: 4/3/2019 23:26:35 Type: Unk  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 2.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment: as only mp13761

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9538	.0094	.0002	.0858	.2239	.2140	4.142	.1681	.0027
Stddev	.0207	.0001	.0004	.0006	.0001	.0012	.012	.0005	.0026
%RSD	2.169	.7571	243.6	.6815	.0402	.5494	.2894	.2866	97.26
#1	.9754	.0095	.0006	.0854	.2240	.2140	4.132	.1677	.0053
#2	.9341	.0094	-.0002	.0864	.2239	.2129	4.139	.1680	.0001
#3	.9519	.0095	.0001	.0855	.2239	.2152	4.155	.1687	.0028
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3409	.4127	.0633	.0023	.1509	.0016	-.0020	170.4	4.836
Stddev	.0011	.0014	.0013	.0019	.0031	.0036	.0009	4.4	.116
%RSD	.3154	.3293	2.131	83.31	2.083	223.6	46.80	2.588	2.401
#1	.3397	.4133	.0629	.0018	.1545	-.0025	-.0019	175.3	4.958
#2	.3418	.4137	.0648	.0006	.1487	.0039	-.0012	166.8	4.727
#3	.3412	.4112	.0622	.0044	.1495	.0033	-.0030	169.2	4.825
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	271.4	22.36	11.47	7068	.0321	.0043	1.540	.0220	.0831
Stddev	6.9	.69	.19	.0110	.0018	.0007	.004	.0012	.0019
%RSD	2.537	3.090	1.664	1.562	5.676	15.43	.2941	5.413	2.311
#1	279.0	23.07	11.60	.7117	.0301	.0037	1.544	.0208	.0853
#2	265.6	21.69	11.25	6941	.0337	.0042	1.541	.0222	.0815
#3	269.8	22.32	11.55	.7145	.0324	.0050	1.535	.0232	.0826
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	4.507	.0057	.0844	4.270	-.0046	.0871	2.580		
Stddev	.015	.0005	.0006	.0049	.0024	.0025	.024		
%RSD	.3224	9.043	.6675	1.159	52.66	2.903	.9197		
#1	4.494	.0063	.0840	.4286	-.0072	.0875	2.599		
#2	4.503	.0053	.0842	.4310	-.0025	.0844	2.554		
#3	4.523	.0055	.0851	.4215	-.0041	.0894	2.588		

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Sample Name: jc85533-2 Acquired: 4/3/2019 23:26:35 Type: Unk  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 2.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment: as only mp13761

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	115050.	10534.	4760.1	9597.8
Stddev	367.	306.	6.5	15.8
%RSD	.31866	2.9084	.13621	.16419
#1	114630.	10186.	4766.2	9615.9
#2	115320.	10764.	4753.3	9590.1
#3	115190.	10652.	4760.9	9587.4

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Sample Name: jc85533-3 Acquired: 4/3/2019 23:31:50 Type: Unk  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 2.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7208	.0089	.0003	.0736	.2308	.1931	2.880	.1681	.0002
Stddev	.0140	.0001	.0002	.0004	.0027	.0022	.035	.0012	.0009
%RSD	1.941	1.039	82.61	.5764	1.182	1.165	1.224	.6857	390.0
#1	.7069	.0090	.0003	.0731	.2283	.1905	2.845	.1668	.0007
#2	.7205	.0089	.0006	.0738	.2303	.1943	2.881	.1685	-.0008
#3	.7348	.0089	.0001	.0739	.2337	.1945	2.916	.1690	.0008
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3592	.4234	.0611	.0002	.1324	-.0016	-.0020	167.0	4.558
Stddev	.0043	.0027	.0021	.0009	.0016	.0028	.0032	2.0	.091
%RSD	1.197	.6400	3.380	480.3	1.184	172.6	159.5	1.204	1.992
#1	.3556	.4203	.0592	.0012	.1340	-.0001	-.0020	165.0	4.457
#2	.3582	.4243	.0633	-.0004	.1309	-.0048	.0012	166.9	4.583
#3	.3640	.4255	.0610	-.0003	.1322	.0001	-.0053	169.0	4.634
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	255.1	21.99	10.87	.5749	.0336	.0048	1.565	.0229	.0794
Stddev	3.3	.49	.35	.0202	.0016	.0002	.013	.0014	.0017
%RSD	1.283	2.241	3.235	3.508	4.842	5.001	.8308	6.003	2.184
#1	251.9	21.49	10.57	.5553	.0323	.0047	1.551	.0244	.0776
#2	255.0	22.02	10.78	.5739	.0330	.0050	1.570	.0219	.0796
#3	258.5	22.47	11.26	.5956	.0354	.0045	1.575	.0222	.0810
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	4.569	.0082	.0843	4.260	-.0037	.0855	2.624		
Stddev	.052	.0017	.0011	.0023	.0018	.0010	.009		
%RSD	1.129	20.08	1.266	.5461	47.50	1.176	.3492		
#1	4.519	.0083	.0836	4.236	-.0023	.0848	2.616		
#2	4.567	.0066	.0838	4.263	-.0057	.0850	2.634		
#3	4.622	.0099	.0855	4.282	-.0031	.0867	2.623		

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Sample Name: jc85533-3 Acquired: 4/3/2019 23:31:50 Type: Unk  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 2.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	114870.	10657.	4748.5	9549.2
Stddev	310.	19.	3.7	6.1
%RSD	.26987	.18072	.07699	.06393
#1	115220.	10645.	4748.6	9554.4
#2	114730.	10679.	4744.8	9542.5
#3	114650.	10646.	4752.1	9550.7

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Sample Name: jc85533-4 Acquired: 4/3/2019 23:37:05 Type: Unk  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 2.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.430	.0125	.0007	.1490	.2324	.2508	7.810	.2563	-.0027
Stddev	.045	.0003	.0003	.0009	.0014	.0039	.091	.0016	.0011
%RSD	3.122	2.752	52.16	.6334	6.156	1.552	1.160	.6289	41.97
#1	1.382	.0122	.0009	.1480	.2309	.2471	7.714	.2547	-.0039
#2	1.436	.0125	.0009	.1493	.2324	.2505	7.824	.2579	-.0025
#3	1.470	.0128	.0003	.1498	.2338	.2549	7.894	.2564	-.0016
Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3285	.6138	.0482	-.0002	.1736	-.0053	-.0026	172.5	11.07
Stddev	.0028	.0017	.0019	.0031	.0016	.0024	.0024	3.6	.33
%RSD	.8472	.2850	4.036	1532.	.8932	45.16	92.37	2.065	2.952
#1	.3262	.6120	.0461	-.0033	.1731	-.0076	-.0043	168.8	10.75
#2	.3278	.6154	.0498	-.0002	.1722	-.0053	.0002	172.9	11.06
#3	.3316	.6142	.0488	.0030	.1753	-.0029	-.0037	175.8	11.40
Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	275.1	20.93	12.73	.7531	.0335	.0019	1.601	.0220	.1327
Stddev	6.6	.66	.61	.0471	.0012	.0003	.008	.0011	.0045
%RSD	2.385	3.152	4.796	6.255	3.657	15.17	.4767	4.919	3.390
#1	268.3	20.22	12.11	.7013	.0321	.0016	1.593	.0208	.1279
#2	275.7	21.03	12.74	.7646	.0343	.0021	1.600	.0227	.1334
#3	281.4	21.53	13.33	.7934	.0342	.0021	1.609	.0226	.1368
Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774		
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm		
Avg	3.506	.0080	.0766	2.414	-.0004	.0831	4.506		
Stddev	.037	.0006	.0010	.0073	.0011	.0035	.027		
%RSD	1.052	7.570	1.327	3.034	248.1	4.229	.6000		
#1	3.467	.0084	.0758	2.361	-.0008	.0792	4.480		
#2	3.511	.0082	.0762	2.384	-.0010	.0842	4.506		
#3	3.540	.0073	.0778	2.498	-.0010	.0859	4.534		

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Sample Name: jc85533-4 Acquired: 4/3/2019 23:37:05 Type: Unk  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 2.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	117310.	10918.	4846.3	9523.9
Stddev	41.	52.	5.7	2.6
%RSD	.03504	.48046	.11727	.02738

#1	117340.	10907.	4848.7	9526.6
#2	117320.	10975.	4839.8	9521.4
#3	117260.	10872.	4850.3	9523.8

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Sample Name: jc85533-5 Acquired: 4/3/2019 23:42:19 Type: Unk  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 2.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.259	.0132	.0001	1.246	2.130	2.338	7.084	.2269	-0.0030
Stddev	.031	.0003	.0001	.0030	.0047	.0057	.161	.0050	.0019
%RSD	2.472	2.226	101.9	2.407	2.207	2.450	2.271	2.186	62.44

#1	1.228	.0129	-.0000	1.212	2.080	2.277	6.937	.2212	-0.0038
#2	1.259	.0131	.0002	1.258	2.138	2.348	7.059	.2291	-0.0043
#3	1.290	.0135	.0001	1.269	2.173	2.390	7.256	.2303	-0.0009

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3106	.6183	.0425	-.0017	1.668	-.0052	-.0012	152.6	6.584
Stddev	.0073	.0124	.0015	.0014	.0041	.0014	.0029	2.7	.158
%RSD	2.348	2.005	3.531	83.45	2.460	27.31	234.9	1.787	2.404

#1	.3039	.6040	.0440	-.0027	.1623	-.0040	.0008	149.9	6.436
#2	.3096	.6245	.0426	-.0001	.1678	-.0068	.0000	152.7	6.564
#3	.3184	.6263	.0410	-.0022	.1703	-.0049	-.0046	155.4	6.751

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	253.3	20.33	11.61	6.202	0.323	0.020	1.570	0.019	0.918
Stddev	5.1	.47	.31	.0209	.0019	.0002	.034	.0019	.0022
%RSD	2.021	2.299	2.709	3.373	5.983	11.70	2.151	8.693	2.384

#1	248.7	19.84	11.30	5.962	.0304	.0018	1.532	.0206	.0896
#2	252.5	20.37	11.60	6.298	.0343	.0019	1.583	.0241	.0918
#3	258.8	20.77	11.93	6.346	.0323	.0022	1.596	.0210	.0940

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.007	.0088	.0617	2.949	.0016	.0735	4.303
Stddev	.058	.0010	.0012	.0083	.0014	.0032	.091
%RSD	1.940	11.55	1.891	2.801	88.82	4.373	2.126

#1	2.951	.0095	.0606	2.854	.0025	.0722	4.200
#2	3.002	.0092	.0616	2.996	.0024	.0712	4.334
#3	3.068	.0076	.0629	2.997	-.0000	.0772	4.375

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Sample Name: jc85533-5 Acquired: 4/3/2019 23:42:19 Type: Unk  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 2.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	116460.	10765.	4802.6	9531.4
Stddev	521.	23.	14.2	14.8
%RSD	.44779	.21532	.29604	.15530

#1	116130.	10771.	4793.8	9528.2
#2	117060.	10784.	4795.0	9518.4
#3	116190.	10739.	4819.0	9547.5

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Sample Name: jc85533-6 Acquired: 4/3/2019 23:47:32 Type: Unk  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 2.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Elem	Ba4554	Be3130	Cd2288	Co2286	Cr2677	Cu3247	Mn2576	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7613	.0097	.0004	1.150	2.297	2.006	4.729	1.643	0.028
Stddev	.0017	.0003	.0004	.0004	.0025	.0005	.012	.0009	.0006
%RSD	.2233	2.988	103.8	.3081	1.092	.2497	.2559	.5723	22.88

#1	.7603	.0101	.0009	1.154	2.269	2.006	4.715	1.645	.0021
#2	.7605	.0095	.0001	1.148	2.315	2.012	4.734	1.633	.0029
#3	.7633	.0096	.0002	1.147	2.308	2.002	4.737	1.651	.0034

Elem	V_2924	Zn2062	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ca3179
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.561	4.182	.0617	0.006	1.487	0.007	0.0017	190.2	4.178
Stddev	.0021	.0006	.0017	.0023	.0022	.0037	.0010	.2	.019
%RSD	.5843	.1412	2.807	392.8	1.487	521.1	60.61	.1037	.4490

#1	3.538	4.187	.0600	-.0002	1.499	-.0013	-.0023	190.3	4.157
#2	3.567	4.184	.0615	-.0012	1.461	-.0016	-.0022	189.9	4.182
#3	3.578	4.176	.0635	.0031	1.500	.0050	-.0005	190.2	4.194

Elem	Fe2599	Mg2790	K_7664	Na5895	B_2089	Mo2020	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	281.4	21.72	13.08	5.558	0.354	0.049	1.562	0.234	0.740
Stddev	.2	.12	.01	.0062	.0005	.0005	.006	.0008	.0007
%RSD	.0689	.5470	.0764	1.119	1.443	9.819	.3761	3.291	.9324

#1	281.5	21.59	13.07	5.628	0.351	0.054	1.568	.0242	.0732
#2	281.1	21.83	13.08	5.508	0.350	0.044	1.557	.0227	.0743
#3	281.4	21.75	13.08	5.539	0.360	0.048	1.561	.0233	.0745

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.905	.0096	.0899	6.163	-.0034	.0914	2.864
Stddev	.015	.0005	.0004	.0023	.0018	.0019	.005
%RSD	.3080	4.807	.4470	.3804	54.16	2.068	.1675

#1	4.888	.0101	.0901	6.166	-.0044	.0904	2.858
#2	4.912	.0092	.0894	6.185	-.0013	.0901	2.866
#3	4.915	.0095	.0901	6.138	-.0045	.0935	2.867

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Sample Name: jc85533-6 Acquired: 4/3/2019 23:47:32 Type: Unk  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 2.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	113790.	10657.	4692.5	9519.2
Stddev	197.	36.	7.7	12.7
%RSD	.17293	.34030	.16355	.13390
#1	114020.	10617.	4684.0	9508.3
#2	113660.	10666.	4694.4	9516.2
#3	113690.	10688.	4699.0	9533.3

Elem	Units	Avg	Stddev	%RSD
#1	ppm	1.970	0.04	.020
#2	ppm	1.977	0.04	.020
#3	ppm	1.972	0.04	.020

Elem	Units	Avg	Stddev	%RSD
#1	ppm	1.950	0.02	.010
#2	ppm	1.947	0.02	.010
#3	ppm	1.950	0.02	.010

Check ? Value Range

Sample Name: ccv Acquired: 4/3/2019 23:52:46 Type: QC  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Elem	Units	Avg	Stddev	%RSD
#1	ppm	1.970	0.04	.020
#2	ppm	1.977	0.04	.020
#3	ppm	1.972	0.04	.020

Elem	Units	Avg	Stddev	%RSD
#1	ppm	1.950	0.02	.010
#2	ppm	1.947	0.02	.010
#3	ppm	1.950	0.02	.010

Check ? Value Range

Elem	Units	Avg	Stddev	%RSD
#1	ppm	39.01	0.04	.102
#2	ppm	39.05	0.04	.102
#3	ppm	39.02	0.04	.102

Check ? Value Range

7.3  
7

Sample Name: ccv Acquired: 4/3/2019 23:52:46 Type: QC  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Elem	Units	Avg	Stddev	%RSD
#1	ppm	1.976	0.03	.015
#2	ppm	1.969	0.03	.015
#3	ppm	1.974	0.03	.015

Check ? Value Range

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	107330.	10038.	4438.9	9058.5
Stddev	180.	25.	11.3	20.6
%RSD	.16727	.25227	.25364	.22775
#1	107230.	10055.	4428.5	9041.7
#2	107540.	10008.	4432.6	9052.3
#3	107220.	10049.	4449.7	9081.5

Sample Name: ccb Acquired: 4/3/2019 23:57:47 Type: QC  
Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
User: admin Custom ID1: Custom ID2: Custom ID3:  
Comment:

Elem	Units	Avg	Stddev	%RSD
#1	ppm	-0.002	0.005	.002
#2	ppm	-0.005	0.002	.002
#3	ppm	-0.006	0.003	.004

Check ? Value Range

Elem	Units	Avg	Stddev	%RSD
#1	ppm	0.002	0.001	.002
#2	ppm	0.001	0.001	.001
#3	ppm	0.004	0.001	.002

Check ? High Limit Low Limit

Elem	Units	Avg	Stddev	%RSD
#1	ppm	0.002	0.001	.002
#2	ppm	0.001	0.001	.001
#3	ppm	0.004	0.001	.002

Check ? High Limit Low Limit

Sample Name: ccb Acquired: 4/3/2019 23:57:47 Type: QC  
 Method: SGS 3(v260) Mode: CONC Corr. Factor: 1.000000  
 User: admin Custom ID1: Custom ID2: Custom ID3:  
 Comment:

Elem	Ti3349	W_2079	Zr3391	S_1820	Bi2230	Li6707	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001	.0010	.0004	-.0012	-.0001	.0006	-.0063
Stddev	.0001	.0004	.0000	.0012	.0006	.0016	.0008
%RSD	77.25	42.78	5.602	104.6	491.0	283.2	12.03

#1	.0000	.0011	.0004	-.0023	.0005	-.0012	-.0069
#2	.0001	.0013	.0004	-.0014	-.0002	.0020	-.0054
#3	.0001	.0005	.0004	.0001	-.0007	.0009	-.0065

Check ? Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass Chk Pass  
 High Limit  
 Low Limit

Int. Std.	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	113680.	10138.	4606.5	10133.
Stddev	67.	62.	2.3	14.
%RSD	.05919	.61309	.05034	.13623

#1	113660.	10070.	4607.2	10141.
#2	113630.	10155.	4608.4	10140.
#3	113760.	10190.	4603.9	10117.

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Ba 455.403 { 74}	<input checked="" type="checkbox"/>	3	Mg	0.000001	0.000000	No
			Al	0.000002	0.000000	No
			Zr	0.000727	0.000000	No
Be 313.042 {108}	<input checked="" type="checkbox"/>	9	V	0.000161	0.000000	No
			Mo	-0.000030	0.000000	No
			Ti	-0.000643	0.000000	No
			Mn	-0.000018	0.000000	No
			Ni	0.000001	0.000000	No
			Ca	-0.000000	0.000000	No
			Cu	0.000014	0.000000	No
			Zn	-0.000010	0.000000	No
			Fe	-0.000002	0.000000	No
Cd 228.802 {448}	<input checked="" type="checkbox"/>	13	As	0.004268	0.000000	No
			Ni	-0.000800	0.000000	No
			Fe	-0.000006	0.000000	No
			V	0.000110	0.000000	No
			Ba	0.000054	0.000000	No
			Co	-0.000509	0.000000	No
			Ca	0.000000	0.000000	No
			Mn	0.000014	0.000000	No
			Cr	0.000007	0.000000	No
			Cu	0.000024	0.000000	No
			Al	0.000000	0.000000	No
			Mo	0.000004	0.000000	No
			W	0.000000	0.000000	No
Co 228.616 {448}	<input checked="" type="checkbox"/>	9	Fe	-0.000001	0.000000	No
			Cr	-0.000046	0.000000	No
			Mo	-0.001750	0.000000	No
			Ni	0.000084	0.000000	No
			Ti	0.002220	0.000000	No
			W	0.000160	0.000000	No
			Cd	-0.000188	0.000000	No
			Ca	0.000000	0.000000	No
			As	0.000150	0.000000	No
Cr 267.716 {126}	<input checked="" type="checkbox"/>	11	Mn	0.000474	0.000000	No
			Mo	0.000033	0.000000	No
			Fe	-0.000009	0.000000	No
			Cd	-0.000050	0.000000	No
			Al	-0.000000	0.000000	No
			Ca	0.000002	0.000000	No
			Mg	0.000001	0.000000	No
			Ti	0.000050	0.000000	No
			Ba	0.000013	0.000000	No
			Cu	0.000100	0.000000	No
			Sr	-0.000100	0.000000	No
Cu 324.754 {104}2	<input checked="" type="checkbox"/>	17	Cr	0.000000	0.000000	No
			V	-0.000408	0.000000	No
			Mo	0.000572	0.000000	No
			Ti	-0.000330	0.000000	No
			Fe	-0.000147	0.000000	No
			Al	0.000000	0.000000	No
			Sn	-0.000097	0.000000	No
			Co	-0.000980	0.000000	No
			Zr	-0.000500	0.000000	No
			Si	-0.000002	0.000000	No
			Mn	-0.000072	0.000000	No
			Se	0.000050	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Ag	0.000166	0.000000	No
			Sb	0.000024	0.000000	No
			Pb	0.000040	0.000000	No
			Be	-0.000031	0.000000	No
			W	0.000000	0.000000	No
Mn 257.610 {131}	<input checked="" type="checkbox"/>	6	Fe	-0.000074	0.000000	No
			Si	0.000044	0.000000	No
			Ba	0.000012	0.000000	No
			Ni	0.000028	0.000000	No
			Mo	0.000000	0.000000	No
			Cr	-0.000114	0.000000	No
Ni 231.604 {446}	<input checked="" type="checkbox"/>	11	Fe	0.000030	0.000000	No
			Zn	-0.000021	0.000000	No
			Be	-0.000112	0.000000	No
			Co	-0.000360	0.000000	No
			Tl	0.000209	0.000000	No
			V	-0.000032	0.000000	No
			Cu	0.000100	0.000000	No
			Cr	-0.000014	0.000000	No
			Si	-0.000030	0.000000	No
			Sn	0.000079	0.000000	No
			W	0.000830	0.000000	No
Ag 328.068 {103}	<input checked="" type="checkbox"/>	15	Mn	0.000291	0.000000	No
			Mo	-0.000154	0.000000	No
			Ti	-0.000913	0.000000	No
			Fe	-0.000285	0.000000	No
			V	-0.000862	0.000000	No
			Zn	0.000570	0.000000	No
			Ca	-0.000004	0.000000	No
			Al	-0.000002	0.000000	No
			Mg	-0.000000	0.000000	No
			Ba	-0.000189	0.000000	No
			Cr	-0.000038	0.000000	No
			Zr	0.005170	0.000000	No
			Sn	-0.000100	0.000000	No
			W	0.000000	0.000000	No
			K	-0.000080	0.000000	No
V 292.402 {115}	<input checked="" type="checkbox"/>	7	Ti	0.000776	0.000000	No
			Mo	-0.014700	0.000000	No
			Fe	0.000010	0.000000	No
			Sr	0.000000	0.000000	No
			Cr	-0.003290	0.000000	No
			Mn	-0.003790	0.000000	No
			W	0.000050	0.000000	No
Zn 206.200 {464}	<input checked="" type="checkbox"/>	15	Cr	-0.000874	0.000000	No
			Mo	-0.000228	0.000000	No
			Fe	0.000010	0.000000	No
			Al	0.000000	0.000000	No
			Si	0.000065	0.000000	No
			Ba	-0.000060	0.000000	No
			Ca	0.000004	0.000000	No
			Sr	0.000017	0.000000	No
			Sn	0.000069	0.000000	No
			Cu	0.000056	0.000000	No
			As	-0.000050	0.000000	No
			Be	0.000071	0.000000	No
			Bi	-0.000400	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			W	0.000000	0.000000	No
			Tl	0.000030	0.000000	No
As 189.042 (478)	<input checked="" type="checkbox"/>	23	Al	0.000002	0.000000	No
			Fe	-0.000048	0.000000	No
			Ca	0.000001	0.000000	No
			Mn	-0.000010	0.000000	No
			Mo	0.002800	0.000000	No
			Cr	0.000646	0.000000	No
			V	0.000052	0.000000	No
			Co	-0.000029	0.000000	No
			W	0.010000	0.000000	No
			Sn	-0.000123	0.000000	No
			Cd	-0.000194	0.000000	No
			Tl	0.000385	0.000000	No
			Be	-0.000017	0.000000	No
			Mg	0.000002	0.000000	No
			Si	0.000007	0.000000	No
			Zn	0.000070	0.000000	No
			Sr	-0.000080	0.000000	No
			Zr	0.000074	0.000000	No
			Tl	-0.000001	0.000000	No
			Cu	0.000077	0.000000	No
			K	0.000000	0.000000	No
			B	-0.000030	0.000000	No
Tl 190.856 (477)	<input checked="" type="checkbox"/>	24	S	0.000005	0.000000	No
			Cr	0.000289	0.000000	No
			Mo	-0.001800	0.000000	No
			Al	-0.000004	0.000000	No
			Fe	-0.000052	0.000000	No
			V	-0.020300	0.000000	No
			Mn	0.001620	0.000000	No
			Si	-0.000016	0.000000	No
			Ca	-0.000003	0.000000	No
			Ti	-0.002900	0.000000	No
			Mg	-0.000000	0.000000	No
			Co	0.004745	0.000000	No
			Sr	-0.000222	0.000000	No
			B	0.000120	0.000000	No
			Ba	0.000110	0.000000	No
			Zn	0.000025	0.000000	No
			As	0.000015	0.000000	No
			Ni	0.000051	0.000000	No
			Cu	-0.000032	0.000000	No
			W	0.010000	0.000000	No
			Sn	-0.000080	0.000000	No
			Se	0.000040	0.000000	No
			S	0.000010	0.000000	No
			K	0.000000	0.000000	No
Pb 220.353 (453)	<input checked="" type="checkbox"/>	23	P	0.000000	0.000000	No
			Al	-0.000146	0.000000	No
			Fe	0.000044	0.000000	No
			Ca	-0.000004	0.000000	No
			Mn	0.000145	0.000000	No
			Zn	-0.000036	0.000000	No
			Mo	-0.000670	0.000000	No
			Cu	0.000410	0.000000	No
			V	0.000013	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Co	0.000116	0.000000	No
			Tl	-0.000040	0.000000	No
			Si	0.000016	0.000000	No
			Ba	-0.000012	0.000000	No
			Sb	0.000006	0.000000	No
			Sr	-0.000050	0.000000	No
			W	0.000000	0.000000	No
			Mg	0.000003	0.000000	No
			Cd	0.000476	0.000000	No
			Zr	-0.000300	0.000000	No
			Ni	0.000320	0.000000	No
			S	-0.000010	0.000000	No
			Se	0.000036	0.000000	No
			As	0.000200	0.000000	No
			Cr	-0.000150	0.000000	No
Se 196.090 {472}	<input checked="" type="checkbox"/>	22	Al	0.000001	0.000000	No
			Ca	0.000001	0.000000	No
			Mn	0.000651	0.000000	No
			Mo	0.000277	0.000000	No
			Fe	-0.000159	0.000000	No
			Co	-0.000029	0.000000	No
			V	0.000207	0.000000	No
			Sr	-0.000008	0.000000	No
			Cu	-0.000113	0.000000	No
			W	0.000000	0.000000	No
			Si	0.000157	0.000000	No
			Tl	0.000180	0.000000	No
			Be	-0.000143	0.000000	No
			Zn	-0.000250	0.000000	No
			B	-0.000141	0.000000	No
			Ti	0.000016	0.000000	No
			Cd	0.000090	0.000000	No
			Zr	-0.000280	0.000000	No
			Ba	0.000180	0.000000	No
			Mg	-0.000002	0.000000	No
			Cr	-0.000039	0.000000	No
			S	-0.000003	0.000000	No
Sb 206.833 {463}	<input checked="" type="checkbox"/>	14	Fe	0.000016	0.000000	No
			Al	-0.000017	0.000000	No
			Ca	-0.000006	0.000000	No
			Ni	-0.001077	0.000000	No
			Cr	0.022770	0.000000	No
			V	-0.001980	0.000000	No
			Zn	-0.000200	0.000000	No
			Mo	-0.001500	0.000000	No
			Ti	0.001200	0.000000	No
			Sn	-0.015400	0.000000	No
			Mg	-0.000000	0.000000	No
			Zr	-0.000227	0.000000	No
			Sr	0.000209	0.000000	No
			W	0.000000	0.000000	No
Al 396.152 { 85}	<input checked="" type="checkbox"/>	5	Si	0.000913	0.000000	No
			Ca	0.000078	0.000000	No
			Mo	0.046534	0.000000	No
			Zr	-0.006000	0.000000	No
			Ti	-0.000017	0.000000	No
Ca 317.933 {106}	<input checked="" type="checkbox"/>	13	Fe	0.000130	0.000000	No



Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			W	0.003960	0.000000	No
			Tl	0.004950	0.000000	No
			Be	0.001840	0.000000	No
			Ba	0.003500	0.000000	No
			Cu	-0.001800	0.000000	No
			Cd	0.003700	0.000000	No
			Ni	0.001513	0.000000	No
			B	-0.000210	0.000000	No
			Se	0.002000	0.000000	No
			Co	0.000540	0.000000	No
			Cr	0.000640	0.000000	No
			Al	0.000026	0.000000	No
Fe 259.940 {130}	<input checked="" type="checkbox"/>	13	Co	0.000004	0.000000	No
			Si	-0.000100	0.000000	No
			Tl	-0.002590	0.000000	No
			Se	-0.000050	0.000000	No
			Cr	-0.000566	0.000000	No
			Mn	-0.001433	0.000000	No
			V	-0.000064	0.000000	No
			Cu	0.000953	0.000000	No
			K	-0.000200	0.000000	No
			Zn	0.000046	0.000000	No
			Ti	-0.000631	0.000000	No
			Ca	0.000020	0.000000	No
Mg 279.079 {121}	<input checked="" type="checkbox"/>	1	Ba	0.001000	0.000000	No
K 766.490 { 44}	<input checked="" type="checkbox"/>	11	Mo	-0.020780	0.000000	No
			Fe	-0.000340	0.000000	No
			Al	0.000301	0.000000	No
			Ca	0.000448	0.000000	No
			Mn	0.001430	0.000000	No
			Si	-0.003000	0.000000	No
			V	-0.002000	0.000000	No
			Sn	-0.004700	0.000000	No
			Na	0.000300	0.000000	No
			Mo	-0.000850	0.000000	No
			Cu	-0.010000	0.000000	No
Na 589.592 { 57}	<input checked="" type="checkbox"/>	5	Mg	0.000400	0.000000	No
			K	0.000038	0.000000	No
			Ba	0.000900	0.000000	No
			Ca	0.000055	0.000000	No
			Al	0.000040	0.000000	No
			V	-0.005000	0.000000	No
B 208.959 {462}	<input checked="" type="checkbox"/>	1	Mo	0.037210	0.000000	No
Mo 202.030 {467}	<input checked="" type="checkbox"/>	5	Fe	-0.000010	0.000000	No
			Mg	-0.000001	0.000000	No
			Ca	0.000003	0.000000	No
			W	0.000000	0.000000	No
			V	-0.000230	0.000000	No
Si 212.412 {459}	<input checked="" type="checkbox"/>	14	Sr	0.000366	0.000000	No
			Ni	0.000106	0.000000	No
			Mo	0.028950	0.000000	No
			Ti	0.006320	0.000000	No
			Al	0.000012	0.000000	No
			Cd	0.001043	0.000000	No
			Ba	0.000170	0.000000	No
			Fe	0.000040	0.000000	No
			Sn	0.002213	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Zn	0.000385	0.000000	No
			As	-0.000560	0.000000	No
			Pb	0.000471	0.000000	No
			V	0.006165	0.000000	No
			W	-0.025000	0.000000	No
Sn 189.989 {478}	<input checked="" type="checkbox"/>	6	Ti	-0.000621	0.000000	No
			Mo	0.000011	0.000000	No
			Fe	0.000005	0.000000	No
			Mn	0.000060	0.000000	No
			Si	0.000089	0.000000	No
			W	-0.010000	0.000000	No
Sr 407.771 { 83}	<input checked="" type="checkbox"/>	2	Fe	0.000002	0.000000	No
			Ca	0.000023	0.000000	No
Ti 334.904 {101}	<input checked="" type="checkbox"/>	4	Cr	-0.000084	0.000000	No
			Mo	0.001569	0.000000	No
			Si	0.000035	0.000000	No
			Ca	-0.000003	0.000000	No
Y 360.073 { 94}* Y 371.030 { 91}* Y 224.306 {451}* In 230.606 {446}* W 207.911 {462}	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	None None None None 25				
			Al	0.000002	0.000000	No
			Si	-0.000900	0.000000	No
			Fe	-0.000007	0.000000	No
			As	-0.000200	0.000000	No
			Mg	-0.000006	0.000000	No
			Mn	-0.000110	0.000000	No
			Mo	-0.000300	0.000000	No
			Ti	0.000080	0.000000	No
			Sr	-0.000850	0.000000	No
			V	-0.000140	0.000000	No
			Cd	-0.000650	0.000000	No
			Cr	-0.000390	0.000000	No
			Zn	0.012200	0.000000	No
			Sn	0.000078	0.000000	No
			Zr	0.000230	0.000000	No
			B	-0.001000	0.000000	No
			Sb	-0.003000	0.000000	No
			Co	0.000041	0.000000	No
			Ni	-0.000263	0.000000	No
			Be	-0.000130	0.000000	No
			Se	-0.000080	0.000000	No
			Cu	-0.000118	0.000000	No
			Ba	-0.000090	0.000000	No
			Tl	-0.000110	0.000000	No
Zr 339.198 { 99}	<input checked="" type="checkbox"/>	9	Ag	0.000224	0.000000	No
			Mo	0.000323	0.000000	No
			Ti	-0.000010	0.000000	No
			Fe	-0.000060	0.000000	No
			Si	0.000070	0.000000	No
			Bi	0.000295	0.000000	No
			Cr	-0.000900	0.000000	No
			V	0.000200	0.000000	No
			W	0.019000	0.000000	No
			Sn	-0.000400	0.000000	No
S 182.034 {485}	<input checked="" type="checkbox"/>	11	Ca	0.000001	0.000000	No
			Mo	-0.000040	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Al	-0.000110	0.000000	No
			Fe	-0.000023	0.000000	No
			Mn	0.003900	0.000000	No
			W	0.000000	0.000000	No
			Zn	-0.001538	0.000000	No
			Cr	-0.000200	0.000000	No
			Mg	0.000015	0.000000	No
			Ti	0.000300	0.000000	No
			Li	0.000200	0.000000	No
Bi 223.061 {451}	<input checked="" type="checkbox"/>	9	V	-0.000680	0.000000	No
			Co	-0.002200	0.000000	No
			Ca	-0.000005	0.000000	No
			Mg	-0.000002	0.000000	No
			W	0.000000	0.000000	No
			Cu	-0.001186	0.000000	No
			Fe	0.000097	0.000000	No
			Cr	0.001500	0.000000	No
			Ti	-0.004530	0.000000	No
Li 670.784 { 50}	<input checked="" type="checkbox"/>	1	Ca	0.000051	0.000000	No
P 177.495 {490}	<input checked="" type="checkbox"/>	2	Mn	-0.005600	0.000000	No
			Ca	0.000034	0.000000	No

Element, Wavelength and Order	Date of Fit	Date of Cal.	Type of Fit	Weighting	A0	A1	A2	n (Exponent)
Ba 455.403 { 74}	4/4/2019 8:41:16	4/3/2019 10:12:49	Linear	1/Conc	0.005636	1.758316	0.000000	1.000000
Be 313.042 {108}	4/4/2019 8:41:16	4/3/2019 10:12:49	Linear	1/Conc	-0.000250	1.418032	0.000000	1.000000
Cd 228.802 {448}	4/4/2019 8:41:16	4/3/2019 10:12:49	Linear	1/Conc	0.000132	0.888765	0.000000	1.000000
Co 228.616 {448}	4/4/2019 8:41:16	4/3/2019 10:12:49	Linear	1/Conc	-0.000242	0.512023	0.000000	1.000000
Cr 267.716 {126}	4/4/2019 8:41:16	4/3/2019 10:12:49	Linear	1/Conc	-0.000005	0.056541	0.000000	1.000000
Cu 324.754 {104}2	4/4/2019 8:41:16	4/3/2019 10:12:49	Linear	1/Conc	0.002039	0.179764	0.000000	1.000000
Mn 257.610 {131}	4/4/2019 8:41:16	4/3/2019 10:12:49	Linear	1/Conc	0.000040	0.304507	0.000000	1.000000
Ni 231.604 {446}	4/4/2019 8:41:16	4/3/2019 10:12:49	Linear	1/Conc	-0.000153	0.371794	0.000000	1.000000
Ag 328.068 {103}	4/4/2019 8:41:16	4/3/2019 10:12:49	Linear	1/Conc	-0.000437	0.097755	0.000000	1.000000
V 292.402 {115}	4/4/2019 8:41:16	4/3/2019 10:12:49	Linear	1/Conc	-0.000006	0.097860	0.000000	1.000000
Zn 206.200 {464}	4/4/2019 8:41:16	4/3/2019 10:12:49	Linear	1/Conc	0.000697	1.321125	0.000000	1.000000
As 189.042 {478}	4/4/2019 8:41:16	4/3/2019 10:12:49	Linear	1/Conc	-0.000185	0.127109	0.000000	1.000000
Tl 190.856 {477}	4/4/2019 8:41:16	4/3/2019 10:12:49	Linear	1/Conc	-0.000166	0.064396	0.000000	1.000000
Pb 220.353 {453}	4/4/2019 8:41:16	4/3/2019 10:12:49	Linear	1/Conc	-0.000353	0.185279	0.000000	1.000000
Se 196.090 {472}	4/4/2019 8:41:16	4/3/2019 10:12:49	Linear	1/Conc	0.000199	0.102201	0.000000	1.000000
Sb 206.833 {463}	4/4/2019 8:41:16	4/3/2019 10:12:49	Linear	1/Conc	-0.000500	0.177417	0.000000	1.000000
Al 396.152 { 85}	4/4/2019 8:41:16	4/3/2019 10:12:49	Linear	1/Conc	-0.001421	0.034567	0.000000	1.000000
Ca 317.933 {106}	4/4/2019 8:41:16	4/3/2019 10:12:49	Linear	1/Conc	0.005086	0.047623	0.000000	1.000000
Fe 259.940 {130}	4/4/2019 8:41:16	4/3/2019 10:12:49	Linear	1/Conc	0.000073	0.015768	0.000000	1.000000
Mg 279.079 {121}	4/4/2019 8:41:16	4/3/2019 10:12:49	Linear	1/Conc	-0.000027	0.003201	0.000000	1.000000
K 766.490 { 44}	4/4/2019 8:41:16	4/3/2019 10:12:49	Linear	1/Conc	0.004826	0.030757	0.000000	1.000000
Na 589.592 { 57}	4/4/2019 8:41:16	4/3/2019 10:12:49	Linear	1/Conc	-0.000614	0.094423	0.000000	1.000000
B 208.959 {462}	4/4/2019 8:41:16	4/3/2019 10:12:49	Linear	1/Conc	0.000428	0.212617	0.000000	1.000000
Mo 202.030 {467}	4/4/2019 8:41:16	4/3/2019 10:12:49	Linear	1/Conc	0.000060	0.924275	0.000000	1.000000
Si 212.412 {459}	4/4/2019 8:41:16	4/3/2019 10:12:49	Linear	1/Conc	0.002802	0.234995	0.000000	1.000000
Sn 189.989 {478}	4/4/2019 8:41:16	4/3/2019 10:12:49	Linear	1/Conc	0.000227	0.220010	0.000000	1.000000
Sr 407.771 { 83}	4/4/2019 8:41:16	4/3/2019 10:12:49	Linear	1/Conc	0.000803	3.204967	0.000000	1.000000
Ti 334.904 {101}	4/4/2019 8:41:16	4/3/2019 10:12:49	Linear	1/Conc	-0.000040	0.124211	0.000000	1.000000
Y 360.073 { 94}*	4/4/2019 8:41:16	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
Y 371.030 { 91}*	4/4/2019 8:41:16	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
Y 224.306 {451}*	4/4/2019 8:41:16	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
In 230.606 {446}*	4/4/2019 8:41:16	12/23/2009 10:44:16	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
W 207.911 {462}	4/4/2019 8:41:16	4/3/2019 10:12:49	Linear	1/Conc	0.001398	0.460305	0.000000	1.000000
Zr 339.198 { 99}	4/4/2019 8:41:16	4/3/2019 10:12:49	Linear	1/Conc	-0.000169	0.313237	0.000000	1.000000
S 182.034 {485}	4/4/2019 8:41:16	4/3/2019 10:12:49	Linear	1/Conc	-0.001337	0.056556	0.000000	1.000000
Bi 223.061 {451}	4/4/2019 8:41:16	4/3/2019 10:12:49	Linear	1/Conc	-0.000710	0.218626	0.000000	1.000000
Li 670.784 { 50}	4/4/2019 8:41:16	4/3/2019 10:12:49	Linear	1/Conc	0.001169	0.678604	0.000000	1.000000
P 177.495 {490}	4/4/2019 8:41:16	4/3/2019 10:12:49	Linear	1/Conc	-0.007957	0.135556	0.000000	1.000000

Element, Wavelength and Order	Correlation	Std Error of Est	Predicted MDL	Predicted MLQ	Status	Reslope		QC Norm	
						Slope	Y-int	Slope factor	Offset
Ba 455.403 { 74}	1.000000	0.000000	0.000267	0.000890	OK	1.000000	0.000000	1	0
Be 313.042 {108}	1.000000	0.000000	0.000113	0.000375	OK	1.000000	0.000000	1	0
Cd 228.802 {448}	1.000000	0.000000	0.000208	0.000694	OK	1.000000	0.000000	1	0
Co 228.616 {448}	1.000000	0.000000	0.000266	0.000888	OK	1.000000	0.000000	1	0
Cr 267.716 {126}	1.000000	0.000000	0.000464	0.001547	OK	1.000000	0.000000	1	0
Cu 324.754 {104}2	1.000000	0.000000	0.000407	0.001355	OK	1.000000	0.000000	1	0
Mn 257.610 {131}	1.000000	0.000000	0.000074	0.000248	OK	1.000000	0.000000	1	0
Ni 231.604 {446}	1.000000	0.000000	0.000319	0.001063	OK	1.000000	0.000000	1	0
Ag 328.068 {103}	1.000000	0.000000	0.000492	0.001640	OK	1.000000	0.000000	1	0
V 292.402 {115}	1.000000	0.000000	0.000379	0.001265	OK	1.000000	0.000000	1	0
Zn 206.200 {464}	1.000000	0.000000	0.000130	0.000434	OK	1.000000	0.000000	1	0
As 189.042 {478}	1.000000	0.000000	0.001085	0.003616	OK	1.000000	0.000000	1	0
Tl 190.856 {477}	1.000000	0.000000	0.001102	0.003674	OK	1.000000	0.000000	1	0
Pb 220.353 {453}	1.000000	0.000000	0.000976	0.003252	OK	1.000000	0.000000	1	0
Se 196.090 {472}	1.000000	0.000000	0.001808	0.006028	OK	1.000000	0.000000	1	0
Sb 206.833 {463}	1.000000	0.000000	0.001325	0.004415	OK	1.000000	0.000000	1	0
Al 396.152 { 85}	1.000000	0.000000	0.012545	0.041816	OK	1.000000	0.000000	1	0
Ca 317.933 {106}	1.000000	0.000000	0.004105	0.013683	OK	1.000000	0.000000	1	0
Fe 259.940 {130}	1.000000	0.000000	0.005309	0.017698	OK	1.000000	0.000000	1	0
Mg 279.079 {121}	1.000000	0.000000	0.034392	0.114639	OK	1.000000	0.000000	1	0
K 766.490 { 44}	1.000000	0.000000	0.032358	0.107859	OK	1.000000	0.000000	1	0
Na 589.592 { 57}	1.000000	0.000000	0.009655	0.032184	OK	1.000000	0.000000	1	0
B 208.959 {462}	1.000000	0.000000	0.000711	0.002370	OK	1.000000	0.000000	1	0
Mo 202.030 {467}	1.000000	0.000000	0.000220	0.000732	OK	1.000000	0.000000	1	0
Si 212.412 {459}	1.000000	0.000000	0.000968	0.003225	OK	1.000000	0.000000	1	0
Sn 189.989 {478}	1.000000	0.000000	0.000603	0.002009	OK	1.000000	0.000000	1	0
Sr 407.771 { 83}	1.000000	0.000000	0.000112	0.000373	OK	1.000000	0.000000	1	0
Ti 334.904 {101}	1.000000	0.000000	0.000373	0.001242	OK	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
Y 224.306 {451}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	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
W 207.911 {462}	1.000000	0.000000	0.000881	0.002936	OK	1.000000	0.000000	1	0
Zr 339.198 { 99}	1.000000	0.000000	0.000195	0.000650	OK	1.000000	0.000000	1	0
S 182.034 {485}	1.000000	0.000000	0.002581	0.008602	OK	1.000000	0.000000	1	0
Bi 223.061 {451}	1.000000	0.000000	0.001393	0.004642	OK	1.000000	0.000000	1	0
Li 670.784 { 50}	1.000000	0.000000	0.001461	0.004870	OK	1.000000	0.000000	1	0
P 177.495 {490}	1.000000	0.000000	0.001170	0.003899	OK	1.000000	0.000000	1	0



**Mercury Hot Block Digestion Log**

Product **HG / HGTCLP**  
Matrix: Aq / Liq / DW

MA Batch #: MA46407  
Analyst: CH/EAL  
Date: 4/2/2019  
Balance ID: N/A  
Reagents: See attached sheet  
Auto pipet ID: M72

Methods (Circle as appropriate)  
**EPA 245.1**      **SW846 7470A**

Required corrected Temp. Range is 90-95 C.

Hot Block # 7 Start Time: 6:30 End Time: 8:30 Tube # 1-23  
Start Temp: 94 Corrected Start Temp: 93 Correction: -1 Thermometer ID: 6805236  
End Temp: 94 Corrected Start Temp: 93 Correction: -1 Thermometer ID: 6805236  
Hot Block # 8 Start Time: 6:30 End Time: 8:30 Tube # 24-47  
Start Temp: 96 Corrected Start Temp: 94 Correction: -2 Thermometer ID: 3106989  
End Temp: 97 Corrected Start Temp: 95 Correction: -2 Thermometer ID: 3106989

Bot #	Sample ID	pH <2 Y/N	Initial Sample Vol ml	Final Samp Vol ml	Spiked Used		Spikelot and Conc (mg/L)	MP Number	Comments/Lot # and Vendor
					Amount Spiked	Added- Y or N			
1	MP13750-MB1	N	30	30				MP13750	
2	MP13750-B1	N	30	30	2.0 ml	Y	0.03		HG-19-145-144-HGA3, IN. V.
3	MP13750-S1	Y	30	30	2.0 ml	Y	0.03		JC85339-1F, HG-19-145-144-HGA3, I. V.
4	MP13750-S2	Y	30	30	2.0 ml	Y	0.03		JC85339-1F, HG-19-145-144-HGA3, I. V.
5	JC85339-1F	Y	30	30					
6	JC85339-2F	Y	30	30					
7	JC85339-3F	Y	30	30					
8	JC85339-4F	Y	30	30					
9	JC85339-5F	Y	30	30					
10	JC85339-6F	Y	30	30					
11	JC85339-7F	Y	30	30					YELLOW
12	JC85339-8F	Y	30	30					
13	JC85339-9F	Y	30	30					
14	JC85339-10F	Y	30	30					
15	JC85409-11	Y	30	30					
16	JC85409-11F	Y	30	30					
17	JC85431-1	Y	30	30					
18	JC85431-1F	Y	30	30					
19	JC85431-2	Y	30	30					WFB
20	JC85431-2F	Y	30	30					WFBF
21	JC85498-1Q	Y	30	30					
22	JC85499-1Q	Y	30	30					
23	JC85500-1Q	Y	30	30					
24	MP13773-MB1	N	30	30				MP13773	
25	MP13773-B1	N	30	30	2.0 ml	Y	0.03		HG-19-145-144-HGA3, IN. V.
26	MP13773-S1	Y	30	30	2.0 ml	Y	0.03		JC85326-1, HG-19-145-144-HGA3, IN. V.
27	MP13773-S2	Y	30	30	2.0 ml	Y	0.03		JC85326-1, HG-19-145-144-HGA3, IN. V.
28	JC85326-1	Y	30	30					
29	JC85326-1F	Y	30	30					
30	JC85326-2	Y	30	30					
31	JC85326-2F	Y	30	30					
32	JC85326-3	Y	30	30					
33	JC85326-3F	Y	30	30					
34	JC85326-4	Y	30	30					
35	JC85326-4F	Y	30	30					

DAYT-MET-0113-01-FORM-HGWATERPREP  
Revision Date: 8/28/18

ANALYST: EAL  
Spike witness: CH  
QC: REVIEWER: [Signature]

DATE: 4/2/19  
DATE: 3/12/19  
DATE: 4/2/19

7.4.1  
7





**Mercury Hot Block Digestion Log**

Product **HG / HGTCLP**  
Matrix: **Aq / Liq / DW**

MA Batch #: MA46407  
Analyst: CH/EAL  
Date: 4/2/2019  
Balance ID: N/A  
Reagents: See attached sheet  
Auto pipet ID: M72

Methods (Circle as appropriate)  
**EPA 245.1**      **SW846 7470A**

Required corrected Temp. Range is 90-95 C.

Hot Block # 7 Start Time: 6:30 End Time: 8:30 Tube # 1-23  
Start Temp: 94 Corrected Start Temp: 93 Correction: -1 Thermometer ID: 6805236  
End Temp: 94 Corrected Start Temp: 93 Correction: -1 Thermometer ID: 6805236  
Hot Block # 8 Start Time: 6:30 End Time: 8:30 Tube # 24-47  
Start Temp: 96 Corrected Start Temp: 94 Correction: -2 Thermometer ID: 3106989  
End Temp: 97 Corrected Start Temp: 95 Correction: -2 Thermometer ID: 3106989

Bot #	Sample ID	pH <2 Y/N	Initial Sample Vol ml	Final Samp Vol ml	Spiked Used Amount Spiked	Added Y or N	Spikelot and Conc (mg/L)	MP Number	Comments/Lot # and Vendor
36	JC85326-5	Y	30	30					
37	JC85326-5F	Y	30	30					
38	JC85326-6	Y	30	30					
39	JC85326-6F	Y	30	30					
40	JC85326-7	Y	30	30					
41	JC85326-7F	Y	30	30					
42	JC85326-8	Y	30	30					
43	JC85326-8F	Y	30	30					
44	JC85326-9	Y	30	30					
45	JC85326-9F	Y	30	30					
46	JC85326-11	Y	30	30					
47	JC85326-11F	Y	30	30					
48	MP13774-MB1	N	30	30				MP13774	
49	MP13774-B1	N	30	30	2.0 ml	Y	0.03		HG-19-145-144-HGA3, IN. V.
50	MP13774-S1	Y	30	30	2.0 ml	Y	0.03		JC85487-1F, HG-19-145-144-HGA3, I. V.
51	MP13774-S2	Y	30	30	2.0 ml	Y	0.03		JC85487-1F, HG-19-145-144-HGA3, I. V.
52	JC85487-1F	Y	30	30					
53	JC85487-1	Y	30	30					
54	JC85487-2	Y	30	30					
55	JC85487-2F	Y	30	30					
56	JC85487-3	Y	30	30					
57	JC85487-3F	Y	30	30					
58	JC85487-4	Y	30	30					
59	JC85487-4F	Y	30	30					
60	JC85487-5	Y	30	30					
61	JC85487-5F	Y	30	30					
62	JC85487-6	Y	30	30					
63	JC85487-6F	Y	30	30					
64	JC85487-7	Y	30	30					
65	JC85487-7F	Y	30	30					
66	JC85487-8	Y	30	30					
67	JC85487-8F	Y	30	30					
68	JC85487-9	Y	30	30					
69	JC85487-9F	Y	30	30					
70	JC85374-1	Y	30	30					

DAYT-MET-0113-01-FORM-HGWATERPREP  
Revision Date: 8/28/18

ANALYST: EAL  
Spike witness: CH  
QC: REVIEWER: \_\_\_\_\_

DATE: 4/2/19  
DATE: 4/2/19  
DATE: \_\_\_\_\_

7.4.1  
7



**Mercury Hot Block Digestion Log**

Product **HG / HGTCLP**  
Matrix: Aq / Liq / DW

MA Batch #: MA46407  
Analyst: CH/EAL  
Date: 4/2/2019  
Balance ID: N/A  
Reagents: See attached sheet  
Auto pipet ID: M72

Methods (Circle as appropriate)  
**EPA 245.1**      **SW846 7470A**

Required corrected Temp. Range is 90-95 C.

Hot Block # 8 Start Time: 8:30 End Time: 10:30 Tube # 48-95  
Start Temp: 96 Corrected Start Temp: 94 Correction: -2 Thermometer ID: 3106989  
End Temp: 97 Corrected Start Temp: 95 Correction: -2 Thermometer ID: 3106989  
Hot Block # 7 Start Time: 9:00 End Time: 11:00 Tube # 96-109  
Start Temp: 94 Corrected Start Temp: 93 Correction: -1 Thermometer ID: 6805236  
End Temp: 94 Corrected Start Temp: 93 Correction: -1 Thermometer ID: 6805236

Bot #	Sample ID	pH <2 Y/N	Initial Sample Vol ml	Final Samp Vol ml	Spiked Amount Spiked	Used Added- Y or N	Spikelot and Conc (mg/L)	MP Number	Comments/Lot # and Vendor
71	JC85494-6	Y	30	30					
72	MP13776-MB1	N	30	30				MP13776	
73	MP13776-B1	N	30	30	2.0 ml	Y	0.03		HG-19-145-144-HGA3, IN. V.
74	MP13776-S1	Y	30	30	2.0 ml	Y	0.03		JC85409-1F, HG-19-145-144-HGA3, I. V.
75	MP13776-S2	Y	30	30	2.0 ml	Y	0.03		JC85409-1F, HG-19-145-144-HGA3, I. V.
76	JC85409-1F	Y	30	30					
77	JC85409-1	Y	30	30					SEDIMENT
78	JC85409-2	Y	30	30					SEDIMENT
79	JC85409-2F	Y	30	30					
80	JC85409-3	Y	30	30					SEDIMENT
81	JC85409-3F	Y	30	30					
82	JC85409-4	Y	30	30					
83	JC85409-4F	Y	30	30					
84	JC85409-5	Y	30	30					SEDIMENT
85	JC85409-5F	Y	30	30					
86	JC85409-6	Y	30	30					
87	JC85409-6F	Y	30	30					
88	JC85409-7	Y	30	30					
89	JC85409-7F	Y	30	30					
90	JC85409-8	Y	30	30					
91	JC85409-8F	Y	30	30					
92	JC85409-9	Y	30	30					SEDIMENT
93	JC85409-9F	Y	30	30					
94	JC85409-10	Y	30	30					
95	JC85409-10F	Y	30	30					
96	MP13777-MB1	N	30	30				MP13777	
97	MP13777-B1	N	30	30	2.0 ml	Y	0.03		HG-19-145-144-HGA3, IN. V.
98	MP13777-S1	Y	30	30	2.0 ml	Y	0.03		JC85367-1F, HG-19-145-144-HGA3, I. V.
99	MP13777-S2	Y	30	30	2.0 ml	Y	0.03		JC85367-1F, HG-19-145-144-HGA3, I. V.
100	JC85367-1F	Y	30	30					
101	JC85367-2F	Y	30	30					
102	JC85367-3F	Y	30	30					
103	JC85367-4F	Y	30	30					
104	JC85445-1F	Y	30	30					
105	JC85445-2F	Y	30	30					

DAYT-MET-0113-01-FORM-HGWATERPREP  
Revision Date: 8/28/18

ANALYST: EAL  
Spike witness: Ch  
QC: REVIEWER: \_\_\_\_\_

DATE: 4/2/19  
DATE: 4/2/19  
DATE: \_\_\_\_\_

7.4.1  
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**Mercury Hot Block Digestion Log**

Product **HG / HGTCLP**  
Matrix: Aq / Liq / DW

MA Batch #: MA46407  
Analyst: CH/EAL  
Date: 4/2/2019  
Balance ID: N/A  
Reagents: See attached sheet  
Auto pipet ID: M72

Methods (Circle as appropriate)  
EPA 245.1 **SW846 7470A**

Required corrected Temp. Range is 90-95 C.

Hot Block # 8 Start Time: 8:30 End Time: 10:30 Tube # 48-95  
Start Temp: 96 Corrected Start Temp: 94 Correction: -2 Thermometer ID: 3106989  
End Temp: 97 Corrected Start Temp: 95 Correction: -2 Thermometer ID: 3106989  
Hot Block # 7 Start Time: 9:00 End Time: 11:00 Tube # 95-109  
Start Temp: 94 Corrected Start Temp: 93 Correction: -1 Thermometer ID: 6805236  
End Temp: 94 Corrected Start Temp: 93 Correction: -1 Thermometer ID: 6805236

Bot #	Sample ID	pH <2 Y/N	Initial Sample Vol ml	Final Samp Vol ml	Spiked Used		Spikelot and Conc (mg/L)	MP Number	Comments/Lot # and Vendor
					Amount Spiked	Added- Y or N			
106	JC85445-3F	Y	30	30					
107	JC85493-6A	Y	30	30					
108	JC85357-1	Y	30	30					
109	JC85357-2	Y	30	30					
110									
111									
112									
113									
114									
115									
116									
117									
118									
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137									
138									
139									
140									

DAYT-MET-0113-01-FORM-HGWATERPREP  
Revision Date: 8/28/18

ANALYST: EAL  
Spike witness: CH  
QC: REVIEWER: \_\_\_\_\_

DATE: 4/2/19  
DATE: 4/2/19  
DATE: \_\_\_\_\_

7.4.1  
7



Mercury Hot Block Digestion Log

Product HG / EHG / HGTCLP  
Matrix: Aq / Liq / DW

MA Batch #: MA46407  
Analyst: CHEAL  
Date: 4/2/2019  
Balance ID: B-24  
Reagents: See attached sheet  
Auto pipet ID: M-72

Methods (Circle as appropriate)

EPA 245.1 SW846 7470A

Required corrected Temp. Range is 90-95 C.

Hot Block # 8 Start Time: 6:30 End Time: 8:30 Tube # S1-CRI

Start Temp: 96 Corrected Start Temp: 94 Correction: -2 Thermometer ID: 3106989

End Temp: 97 Corrected Start Temp: 95 Correction: -2 Thermometer ID: 3106989

Bot #	Sample ID	pH <2 Y/N	Initial Sample Vol ml	Final Samp Vol ml	Spiked Used		Spikelot and Conc (mg/L)	MP Number	Comments/Lot # and Vendor
					Amount Spiked	Added- Y or N			
S-1	Calibration Blank	N	30 ml	30 ml	0.0 ml	N			
S-2	0.2 ug/l Standard	N	30 ml	30 ml	2.0 ml	Y	0.003		HG-19-145-145-HGA4, IN. V.
S-3	0.5 ug/l Standard	N	30 ml	30 ml	5.0 ml	Y	0.003		HG-19-145-145-HGA4, IN. V.
S-4	1.0 ug/l Standard	N	30 ml	30 ml	1.0 ml	Y	0.030		HG-19-145-144-HGA3, IN. V.
S-5	2.5 ug/l Standard	N	30 ml	30 ml	2.5 ml	Y	0.030		HG-19-145-144-HGA3, IN. V.
S-6	5.0 ug/l Standard	N	30 ml	30 ml	5.0 ml	Y	0.030		HG-19-145-144-HGA3, IN. V.
ICV	ICV (External)	N	30 ml	30 ml	3.0 ml	Y	0.03		HG-19-145-146-HGB3, ULTRA
ICB	ICB	N	30 ml	30 ml	0.0 ml	N			
CCV	CCV	N	30 ml	30 ml	2.5 ml	Y	0.03		HG-19-145-144-HGA3, IN. V.
CCB	CCB	N	30 ml	30 ml	0.0 ml	N			
CRI	CRI	N	30 ml	30 ml	2.0 ml	Y	0.003		HG-19-145-145-HGA4, IN. V.

7.4.1  
7

ANALYST: EM  
QC: REVIEWER: \_\_\_\_\_

DATE: 4/2/19  
DATE: \_\_\_\_\_





## Reagent Information Log- Hg Waters

MA #	46407	
Reagents	Exp. Date	Reagent # or manufacturer lot #
Conc. Sulfuric Acid	3/20/2024	Fisher -188014
Conc. Nitric Acid	2/27/2021	Baker - 205793
Sodium Chloride-Hydroxylamine Hydrochloride	10/2/2019	HG-19-144- 257 -HGHC
Potassium Permanganate 5%	10/2/2019	HG-19-144- 255 -HGKM2
Potassium Persulfate	10/2/2019	HG-19-144- 256 -HGKS
Stannous Chloride	4/3/2019	HG-18-140 147 -HGS
STD Hg standard solution 1000 ppm	3/1/2020	Inorganic Ventures K2-HG669550
STD Hg standard solution 30 ppb	4/3/2019	HG-19-145- 144 -HGA3
STD Hg standard solution 3ppb	4/3/2019	HG-19-145- 145 -HGA4
ICV Hg standard solution 1000 ppm	6/30/2021	Ultra T00601
ICV Hg standard solution 30ppb	4/3/2019	HG-19-145- 146 -HGB3
Dilution Acid	9/4/2019	HG-19-145- 239 HGD2
Digestion Tubes Lot	N/A	Environmental Express 1808354
ph Paper	N/A	Hydron: 206717

Form:GN087A79-03  
Rev. Date: 6/6/17

Accutest Aqueous Metals Digestion Form

Batch Information							
Batch ID	Start Date	Start Time	End Date	End time	QC Samp 1	QC Samp 2	
MP13758	4/2/2019	9:00	4/2/2019	14:30	JC85367-1F		
Temperature							
		Block ID1	Therm. ID#	Temperature	Correction	Corrected Temp	
1	Start	8	4156601	94	0	94	
1	End	8	4156601	95	0	95	
2	Start						
2	End						
Methods and Equipment							
	Dig. Method	Heating Method		Auto Pipette #	Digestion Tube Lot #		
	SW846 3010A	Digestion Block		M-74	1812117		
Initial Sample Volume							
Sample ID	Bottle Number	Pres (Y/N)	Initial Sample Volume	Final Volume in ML	Reagent Groups Added	Spike Groups Added	Comments
MP13758-MB1	N/A	N	50	50	AB		
MP13758-B1	N/A	N	50	50	AB	ABCD	
MP13758-S1	1	Y	50	50	AB	ABCD	
MP13758-S2	1	Y	50	50	AB	ABCD	
MP13758-SD1	1	Y	50	50	AB		
JC85367-1F	1	Y	50	50	AB		
JC85367-2F	1	Y	50	50	AB		
JC85367-3F	1	Y	50	50	AB		
JC85367-4F	1	Y	50	50	AB		
JC85391-1	1	Y	50	50	AB		
JC85391-1F	2	Y	50	50	AB		
JC85391-2	1	Y	50	50	AB		
JC85391-2F	2	Y	50	50	AB		
JC85408-1	1	Y	50	50	AB		
JC85408-2	1	Y	50	50	AB		
JC85446-1	5	Y	50	50	AB		
JC85455-12F	5	Y	50	50	AB		
JC85455-14F	5	Y	50	50	AB		
JC85455-2F	5	Y	50	50	AB		
JC85455-4F	5	Y	50	50	AB		
JC85455-6F	5	Y	50	50	AB		
JC85514-4conf	1	Y	50	50	AB		
JC85514-6conf	1	Y	50	50	AB		
JC85528-15	1	Y	50	50	AB		

Reagents Groups		
Group	Description	MLs Used
A	CONC HNO3	3
B	1:1 HCL	5
C		
D		
E		
F		
G		
H		

Spike Groups		
Group	Description	MLs Used
A	ACCUTEST 13A REV-1	0.5
B	ACCUTEST 14A REV-1	0.5
C	AG 20PPM	0.625
D	MINERALS 5000PPM	0.25
E		
F	MINERALS 5000PPM	0.25
G		
H		

Comments: \_\_\_\_\_

Analyst BHOOMAP Approved by Wendyz Approved on 4/2/2019

Note: Reagent traceability for batch Start Date can be seen on the reagent traceability page for this batch.  
 Serial Dilution samples shown for QC purposes only.  
 Acceptable Temperature range is 90-95 degrees C unless otherwise noted



### Metals Digestion Reagents Information Log

Digestion Batch ID: MP 13758

Date: 4/2/19

Matrix: ALL

<u>Standard/Reagent Type</u>	<u>Exp. Date</u>	<u>Standard/Reagent ID</u>
Spiking Solution - (ACCUTEST-13A REV1)	9/18/2019	MP-015-1146
Spiking Solution - (ACCUTEST-14A REV1)	9/18/2019	MP-015-1145
Spiking Solution - 5000 mg/l Minerals	2/15/2020	N2-MEB674932 MFG: INO. VENT.
Spiking Solution - Sulfur 1000ppm	4/11/2021	LOT: 041118 MFG: ABS. GRADE
Spiking Solution - Si 1000ppm	10/31/2019	N2-SI668066 MFG: INO. VENT.
Spiking Solution - Bi 1000ppm	1/16/2020	N2-BI669548 MFG: INO. VENT.
Spiking Solution - Se 20ppm	9/27/2019	MP-015-1149
Spiking Solution - Li 1000ppm	1/24/2020	N2-LI665824 MFG: INO. VENT.
Spiking Solution- Ag 20 ppm	9/15/2019	MP-015-1144
Spiking Solution - (ACCUTEST-13B REV1)	6/4/2019	MP-015-1118
Spiking Solution - (ACCUTEST-14B REV1)	7/3/2019	MP-015-1126
Spiking Solution - 1000ppm Minerals	6/4/2019	MP-015-1117
Spiking Solution- P		
Nitric Acid	4/1/2021	LOT: 213500 MFG: J.T. BAKER
Nitric Acid (1:1)	10/1/2019	MP-018-42-167 1:1 HNO3
Hydrochloric Acid	4/1/2021	LOT: 217157 MFG: J.T. BAKER
Hydrochloric Acid (1:1)	10/1/2019	MP-018-42-166 1:1 HCL
Hydrogen Peroxide	3/28/2021	LOT: 183575 MFG: FISHER
Soil Lab Control/Soil LC	3/31/2020	LOT: D094-540 MFG: ERA
Teflon Chips(For Soil MB and Blank Spike)	N/A	LOT: 24242815 MFG: SAINT-GOBAIN
Digestion Tubes	N/A	LOT: 1812117 MFG: ENV. EXPRESS
pH Paper	6/15/2021	LOT: 217518 MFG: HYDRION
Filter paper Q8	N/A	LOT: 16917460 MFG: FISHER
Filter paper 0.45µm	N/A	LOT: F8MA26136E MFG: FISHER

Spike witnessed By: TG

Validated By: \_\_\_\_\_

Validated On: \_\_\_\_\_

7.4.2  
7

## General Chemistry

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### QC Data Summaries

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**Includes the following where applicable:**

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: JC85367  
Account: BBLNYS - Arcadis  
Project: National Grid, Philly Coke, Philadelphia, PA

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Solids, Total Dissolved	GN93522	10	0.0	mg/l				

Associated Samples:

Batch GN93522: JC85367-1, JC85367-2, JC85367-3, JC85367-4

(\*) Outside of QC limits

DUPLICATE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: JC85367  
Account: BBLNYS - Arcadis  
Project: National Grid, Philly Coke, Philadelphia, PA

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Solids, Total Dissolved	GN93522	JC85367-1	mg/l	560	580	3.5	0-16%

Associated Samples:

Batch GN93522: JC85367-1, JC85367-2, JC85367-3, JC85367-4

(\*) Outside of QC limits

8.2

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**General Chemistry**

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**Raw Data**

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Product: TDS  
 Units: mg/l  
 RL: 10.0

GN Batch ID: GN93522  
 Analyst: RC  
 Date: 3/30/2019

Balance ID: B53  
 Filtration Time: 11:55

< RDL  
 % RPD: -3.50877193

MB ID: GN93522-MB1  
 Dup ID: GN93522-D1

Result: <RDL  
 Samp Result: 560

RD: 10  
 Dup Result: 580

538  
 533

Test: Total Dissolved Solids  
 Method: SM2540 C-11

QC Summary  
 Filtration Date: 3/30/19

Volume Filtered in ml: 100

Sample ID: GN93522-MB1

Date: 4/1/2019

Time (Start/Finish): 08:30/10:00

Temp (Start/Finish): 13.05/14.17

Weight after drying at 180 deg. C: 180/180

Acceptable Temp. Range = 178 to 182 deg. C

Therm ID:	189560												
Corr Factor:	0												
Botl #	Dish #	Sample ID	Volume Filtered in ml	Filter Tare Weight in g	Weight after drying at 180 deg. C in g	Redy #1 Weight in g (a)	Redy #2 Weight in g (a)	Redy #3 Weight in g (a)	Constant Weight in g (a)	TDS in mg/l (Calculated)	Final TDS* in mg/l	Mass % RPD	Mass % RPD > 5%
	N12	GN93522-MB1	100	114.1431	114.1431	114.1431	NO	NO	114.1431	0.00	0.00		
	B0	GN93522-D1	10	92.5178	92.5235	92.5236	NO	NO	92.5236	580.00	580.00	3.5%	Y
	4	P2	10	97.7151	97.7206	97.7207	NO	NO	97.7207	560.00	560.00	0.9%	Y
	5	A14	100	89.5192	89.5726	89.5725	NO	NO	89.5725	533.00	533.00		
	5	B1	100	94.1422	94.1960	94.1960	NO	NO	94.1960	538.00	538.00		
	5	A8	100	104.8800	104.9158	104.9157	NO	NO	104.9157	357.00	357.00		
	5	P7	100	96.4732	96.4732	96.4732	NO	NO	96.4732	0.00	0.00		
	5	A6	100	88.4278	88.4470	88.4473	NO	NO	88.4473	195.00	195.00		
	5	P4	10	89.2220	89.2276	89.2275	NO	NO	89.2275	550.00	550.00		
	5	E6	50	81.6492	81.6540	81.6540	NO	NO	81.6540	96.00	96.00		
	5	B4	20	87.4469	87.4503	87.4504	NO	NO	87.4504	175.00	175.00		
	5	K3	20	110.2600	110.2684	110.2685	NO	NO	110.2685	425.00	425.00		
	5	L2	20	106.0880	106.0969	106.0969	NO	NO	106.0969	445.00	445.00		
	2	B20	10	108.5040	108.5100	108.5100	NO	NO	108.5100	600.00	600.00		
	2	A7	10	96.6268	96.6345	96.6343	NO	NO	96.6343	750.00	750.00		
	2	A9	10	89.3966	89.4010	89.4010	NO	NO	89.4010	440.00	440.00		
	5	J10	100	103.6015	103.6277	103.6280	NO	NO	103.6280	265.00	265.00		
	5	K6	50	100.3615	100.3761	100.3760	NO	NO	100.3760	290.00	290.00		
	7	A3	100	102.6278	102.7329	102.7330	NO	NO	102.7330	1052.00	1052.00		
	5	D5	100	93.9012	93.9087	93.9087	NO	NO	93.9087	75.00	75.00		
	2	A13	100	87.8797	87.9022	87.9022	NO	NO	87.9022	225.00	225.00		
	2	K9	100	102.1219	102.1226	102.1226	NO	NO	102.1226	7.00	7.00		

\*TDS (mg/l)=(weight of evaporated dish + dried sample, mg - tare weight of evaporated dish, mg)/x1000 ml/l / sample volume, ml

Comments:

Laboratory Sales & Services 25mm Lot# LS-1441016, Laboratory Sales & Services 42mm Lot# LS-1501006

DAYT-WET-0197-10-FORM-TDS  
 REV DATE 10/17/18

*Handwritten signature*

GN93522  
TDS SAMPLE DESCRIPTION SHEET

SGS Sample ID		Filter size used	Non-standard volumes. Comment with reason as shown below.	Limited Volume
JC85367-1	cloudy orange, slight foamy	42	10 a	
JC85282-1	clear		100	
JC85282-2	clear		100	
JC85282-3	clear		100	
JC85282-4	cloudy orange		100	
JC85282-5	slight foamy cloudy orange		10 a	
JC85282-6	cloudy yellow		50 a	
JC85281-1	slight foamy cloudy yellow		20 a	
JC85281-2	↓		20 a	
JC85281-3	↓		20 a	
JC85367-2	foamy cloudy yellow, particles		10 a	
JC85367-3	↓		10 a	
JC85367-4	foamy cloudy clear orange		10 a	
JC85375-1	slight pale		100	
JC85375-2	hazy yellow		50 a	
JC85405-3	almost clear		100	
JC85438-3	↓		100	
JC85438-4	↓		100	
JC85438-5	↓		100	

Q107  
Q102

Reason (a). Sample contains heavy particulates and it can be assessed by appearance that it will clog the filter at higher volumes.  
Reason (b). Initial analysis of the sample at a higher volume produced clogging. Rerunning at reduced volume.

**Misc. Raw Data**

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**Raw Data**

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Filtermet MP Batch ID: MP13695

Method Referenc: EPA 200.7

Filter Date 3/29/2019

Filter Start Time 10:00 Filter End Time 18:45  
~~12:40~~

Sample ID	Pres Y / N	Initial Sample Volume	Final Volume in ML	Acids Used		Spike Group Added	Comments
				Amount of Conc. HNO3(Preservative)	Added Y or N		
MP13695 -MB	N	200	200	2% CONC. HNO3	Y		
MP13695 -MB	N	200	200	2% CONC. HNO3	Y		
MP13695 -B (ICP)	N	200	200	2% CONC. HNO3	Y	ABCE	
MP13695 -LC (HG)	N	200	200	2% CONC. HNO3	Y	D	
1 JC85326-1F ✓	N	500	500	2ML	Y		FINISHED @12:40
2 JC85326-2F ✓	N	500	500	2ML	Y		FINISHED @12:40
3 JC85326-3F ✓	N	500	500	2ML	Y		FINISHED @12:40
4 JC85326-4F ✓	N	500	500	2ML	Y		FINISHED @12:40
5 JC85326-5F ✓	N	500	500	2ML	Y		FINISHED @12:40
6 JC85326-6F ✓	N	500	500	2ML	Y		FINISHED @12:40
7 JC85326-7F ✓	N	500	500	2ML	Y		FINISHED @12:40
8 JC85326-8F ✓	N	500	500	2ML	Y		FINISHED @12:40
9 JC85326-9F ✓	N	500	500	2ML	Y		FINISHED @12:40
10 JC85326-11F ✓	N	500	500	2ML	Y		FINISHED @12:40
11 JC85367-1F	N	500	500	2ML	Y		FINISHED @12:40
12 JC85367-2F	N	500	500	2ML	Y		FINISHED @12:40
13 JC85367-3F	N	500	500	2ML	Y		FINISHED @12:40
14 JC85367-4F	N	500	500	2ML	Y		FINISHED @12:40
15 JC85390-1F	N	500	500	2ML	Y		FINISHED @18:45
16 JC85390-2F	N	500	500	2ML	Y		FINISHED @18:45
17 JC85391-1F ✓	N	500	500	2ML	Y		FINISHED @18:45
18 JC85391-2F ✓	N	500	500	2ML	Y		FINISHED @18:45
19 JC84897-4F ✓	N	100	100	1ML	Y		FINISHED @18:45
20							

Spike Grups			
Group	Description	MLs used	
A	ACCUTEST-13A REV1	2	
B	ACCUTEST-14A REV1	2	
C	MINERALS 5000PPM	1	
D	30 ppb Hg standard	2	HG-19-145-140-HGA3
E	AG 20PPM	2.5	
F			
G			

10.1 10

Analyst: COLLEENH

QC Reviewer:

MP13695  
1/19/18



**Metals Digestion Reagents Information Log**

Digestion Batch ID: MP 13695

Date: 3/29/19

Matrix: ALL

<u>Standard/Reagent Type</u>	<u>Exp. Date</u>	<u>Standard/Reagent ID</u>
<u>Spiking Solution - (ACCUTEST-13A REV1)</u>	<u>9/18/2019</u>	<u>MP-015-1146</u>
<u>Spiking Solution - (ACCUTEST-14A REV1)</u>	<u>9/18/2019</u>	<u>MP-015-1145</u>
<u>Spiking Solution - 5000 mg/l Minerals</u>	<u>2/15/2020</u>	<u>N2-MEB674932 MFG: INO. VENT.</u>
<u>Spiking Solution - Sulfur 1000ppm</u>	<u>4/11/2021</u>	<u>LOT: 041118 MFG: ABS. GRADE</u>
<u>Spiking Solution - Si 1000ppm</u>	<u>10/31/2019</u>	<u>N2-SI668066 MFG: INO. VENT.</u>
<u>Spiking Solution - Bi 1000ppm</u>	<u>1/16/2020</u>	<u>N2-BI669548 MFG: INO. VENT.</u>
<u>Spiking Solution - Se 20ppm</u>	<u>9/27/2019</u>	<u>MP-015-1149</u>
<u>Spiking Solution - Li 1000ppm</u>	<u>1/24/2020</u>	<u>N2-LI665824 MFG: INO. VENT.</u>
<u>Spiking Solution- Ag 20 ppm</u>	<u>9/15/2019</u>	<u>MP-015-1144</u>
<u>Spiking Solution - (ACCUTEST-13B REV1)</u>	<u>6/4/2019</u>	<u>MP-015-1118</u>
<u>Spiking Solution - (ACCUTEST-14B REV1)</u>	<u>7/3/2019</u>	<u>MP-015-1126</u>
<u>Spiking Solution - 1000ppm Minerals</u>	<u>6/4/2019</u>	<u>MP-015-1117</u>
<u>Spiking Solution- P</u>		
<u>Nitric Acid</u>	<u>3/29/2021</u>	<u>LOT: 205793 MFG: J.T. BAKER</u>
<u>Nitric Acid (1:1)</u>	<u>9/28/2019</u>	<u>MP-018-42-164 1:1 HNO3</u>
<u>Hydrochloric Acid</u>	<u>3/28/2021</u>	<u>LOT: 217157 MFG: J.T. BAKER</u>
<u>Hydrochloric Acid (1:1)</u>	<u>9/27/2019</u>	<u>MP-018-42-163 1:1 HCL</u>
<u>Hydrogen Peroxide</u>	<u>3/28/2021</u>	<u>LOT: 183575 MFG: FISHER</u>
<u>Soil Lab Control/Soil LC</u>	<u>3/31/2020</u>	<u>LOT: D094-540 MFG: ERA</u>
<u>Teflon Chips(For Soil MB and Blank Spike)</u>	<u>N/A</u>	<u>LOT: 24242815 MFG: SAINT-GOBAIN</u>
<u>Digestion Tubes</u>	<u>N/A</u>	<u>LOT: 1812117 MFG: ENV. EXPRESS</u>
<u>pH Paper</u>	<u>6/15/2021</u>	<u>LOT: 217518 MFG: HYDRION</u>
<u>Filter paper Q8</u>	<u>N/A</u>	<u>LOT: 16917460 MFG: FISHER</u>
<u>Filter paper 0.45µm</u>	<u>N/A</u>	<u>LOT: F8MA26136E MFG: FISHER</u>

Spike witnessed By: TLG

Validated By: \_\_\_\_\_

Validated On: \_\_\_\_\_

Metals Prep Reagent  
1/17/18

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10